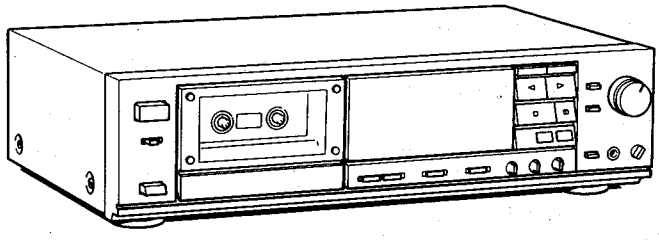
TC-RX80ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



Model Name Using Similar Mechanism	TC-R503ES
Tape Transport Mechanism Type	TCM-CMAY B-22

SPECIFICATIONS

Recording system
4-track 2-channel stereo
Fast-forward and rewind time
Approx. 90 sec. (with C-60 cassette)
Bias AC Bias
Signal-to-noise ratio (NAB, at peak level)

Cassette \ Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)	59 dB	66 dB	72 dB
TYPE II (Sony UX-S)	58 dB	65 dB	71 dB
TYPE I (Sony HF-S)	54 dB	61 dB	67 dB

Total harmonic distortion
1.0% (with Sony METAL-ES cassettes)
Frequency response
DOLBY NR OFF
- With TYPE IV cassette (Sony METAL-ES)
  20–20,000Hz(±3dB) : US model
  30–20,000Hz(±3dB) : Canadian, AEP, UK, E model
  30–15,000 Hz (±3 dB, 0VU recording)
- With TYPE II cassette (Sony UX-S)
  30–17,000 Hz (±3 dB)
- With TYPE I cassette (Sony HF-S)
  30–15,000 Hz (±3 dB)

Wow and flutter 0.05% WRMS (NAB)
Inputs Line inputs (phono jacks)
Sensitivity 77.5 mV (–20 dB)
Input impedance 50 kilohms
Outputs Line outputs (phono jacks)
Rated output level 0.44 V (–5 dB) at load impedance 47 kilohms
Load impedance over 10 kilohms
Headphone output (stereo phone jack)
Output level variable from –20 dB to –∞ dB at load impedance 8 ohms

General

Power requirements
120V AC, 60Hz : US, Canadian model
220V AC, 50/60Hz : AEP model
240V AC, 50/60Hz : UK model
120, 220, 240V AC, 50/60Hz : E model
Power consumption
24 W
Dimensions Approx. 430 × 118 × 285 mm (w/h/d) (17 × 4 3/4 × 11 1/4 inches)
Weight Approx. 5.1 kg (11 lbs 4 oz)

Supplied accessories

Connecting cord (2)
Remote control cord with 4-pin connectors (1)

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

"DOLBY", the double-D symbol ◻◻ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

MICROFILM

STEREO CASSETTE DECK

SONY®

FEATURES

The TC-RX80ES is an auto-reverse cassette deck equipped with a laseramorphous magnetic alloy head using LC-OFC winding for recording and playback, and features the following functions.

- **Quick-reverse function** prevents tape transport on the leader tape.
- **Bias calibration** adjusts bias current to the optimum level for any tape, and **record level calibration** allows optimum performance of the Dolby NR system.
- **The Dolby HX PRO* system** improves the linearity of the tape's high range response during recording.
- **Easy-to-read digital linear counter** shows the elapsed recording or playback time.
- **AMS, blank skip and music scan functions** provide easy access to a desired selection.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

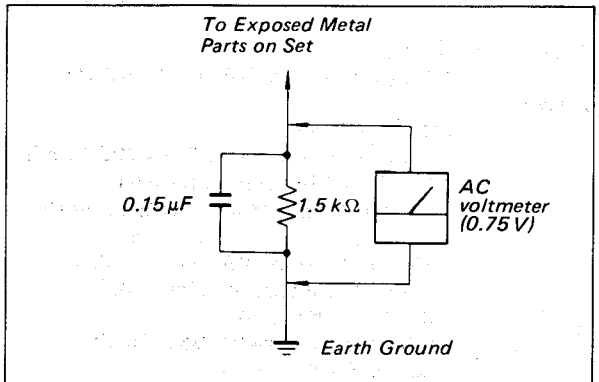


Fig. A. Using an AC voltmeter to check AC leakage.

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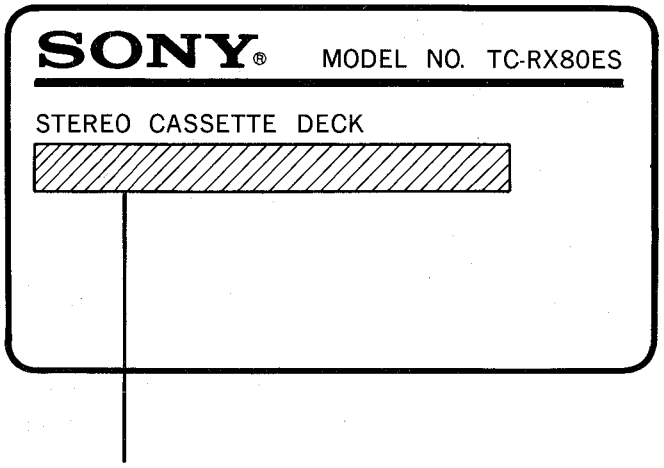
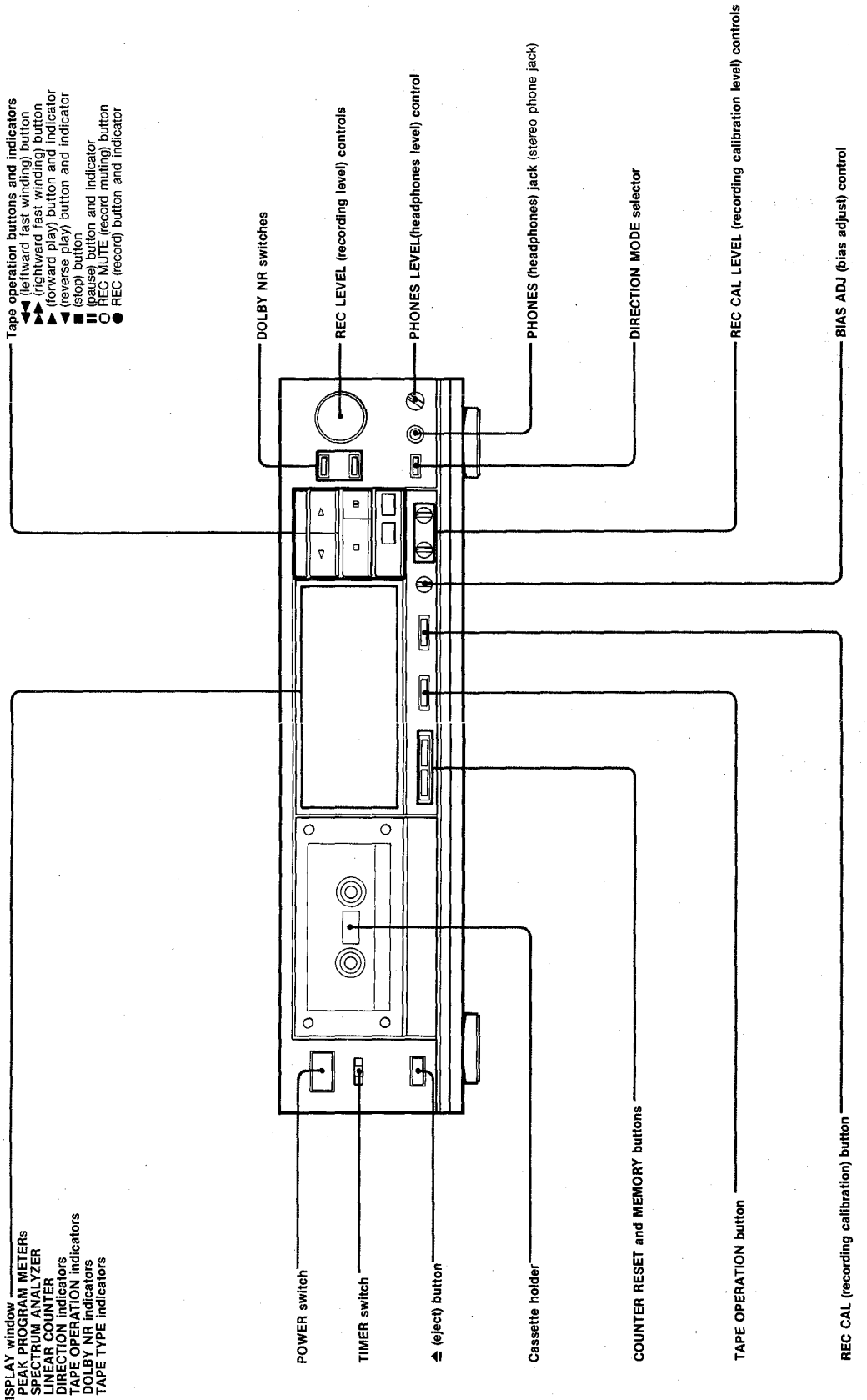
SECTION 1
GENERAL

1-1. MODEL IDENTIFICATION
(Specfication Label)



US model:	AC 120V~60Hz	24W
Canadian model:	AC 120V~60Hz	24W
AEP model:	AC 220V~50/60Hz	24W
UK model:	AC 240V~50/60Hz	24W
E model:	AC 120, 220, 240V~50/60Hz	24W

1-2. LOCATION OF CONTROIS



SECTION 2
MECHANICAL ADJUSTMENT

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head　　pinch roller
   erase head　　rubber belts
   capstan　　idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Torque
Forward	CQ-102C	25−75g•cm (0.35−1.04oz•inch)
FWD back tension	CQ-102C	1−10g•cm (0.01−0.14oz•inch)
Reverse	CQ-102RB	25−75g•cm (0.35−1.04oz•inch)
REV back tension	CQ-102RB	1−10g•cm (0.01−1.04oz•inch)
EF, REW	CQ-201B	80−180g•cm (1.1−2.5oz•inch)

SECTION 3
ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

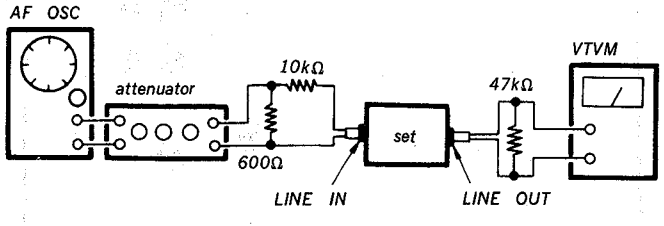
- Set the TAPE switches according to the tape as follows.

Tape	TAPE switch	LED Display
CS-17	AUTO	TYPE I
CS-26	AUTO	TYPE II
CS-42	AUTO	TYPE IV

- Switches and controls should be set as follows unless otherwise specified.
  DOLBY NR switch: OFF
  TIMER switch: OFF
  REC CAL control: center click

- Standard Record:
  Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

—Record Mode—



Standard Input Level

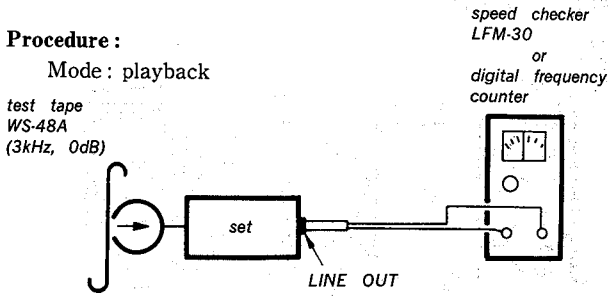
	LINE IN
source impedance	10kΩ
input level	0.25V (−10dB)

Standard Output Level

	LINE OUT
load impedance	47kΩ
output level	0.44V (−5dB)

SPEED ADJUSTMENT

Procedure:
Mode: playback

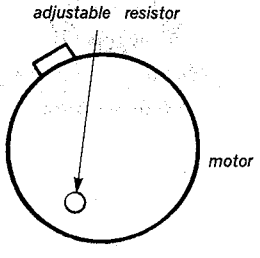


Specification:

Speed checker	Digital frequency counter
−1−+1%	2,970−3,030Hz

Frequency difference between the beginning and the end of the tape should be within 0.8% (25Hz).

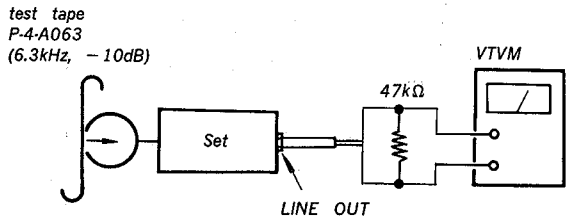
Adjustment Location:
adjustment the adjustable resistor of built in motor (adjustment by the insert to drirer Speed in fastest that turn the clockurse.)



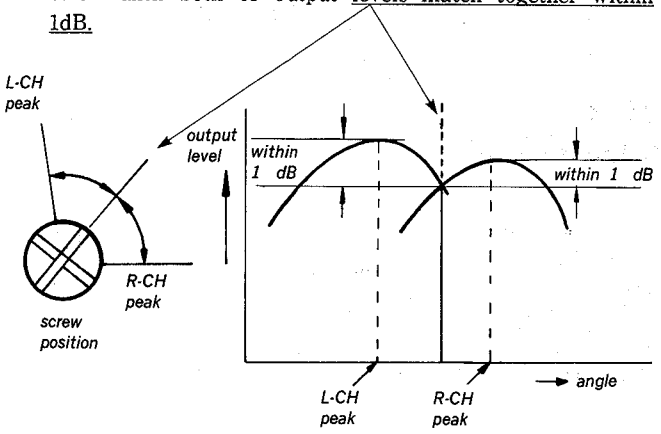
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

procedure :

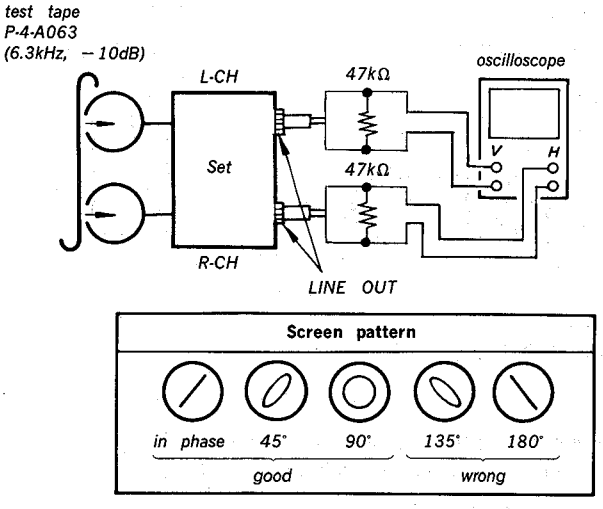
1. Mode : playback



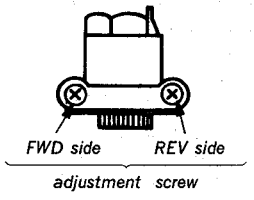
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



3. phase Check
   Mode : playback



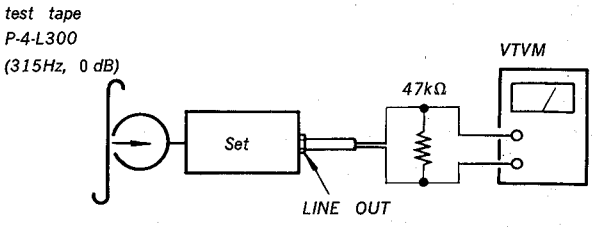
Adjustment Location : REC/PB head



PLAYBACK LEVEL ADJUSTMENT

Procedure :

mode : Playback



Specfication :

LIIN OUT Level : 0.41 to 0.46V
(−5.5 to −4.5dB)

Level difference between charrels : within 0.5dB

Make sure that line-output level does not change When rekeating the playback and stop.

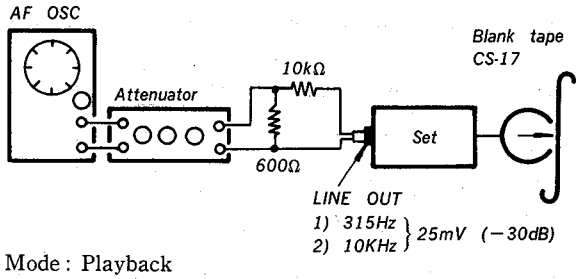
RECORD BIAS ADJUSTMENT

Setting :

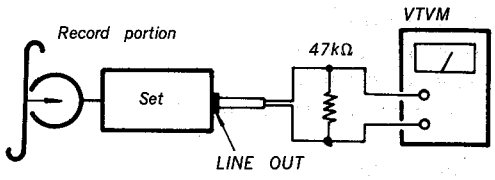
REC LEVEL knob shall be at the specilied record position (see page 5.)

Procedure :

1. Mode Record :

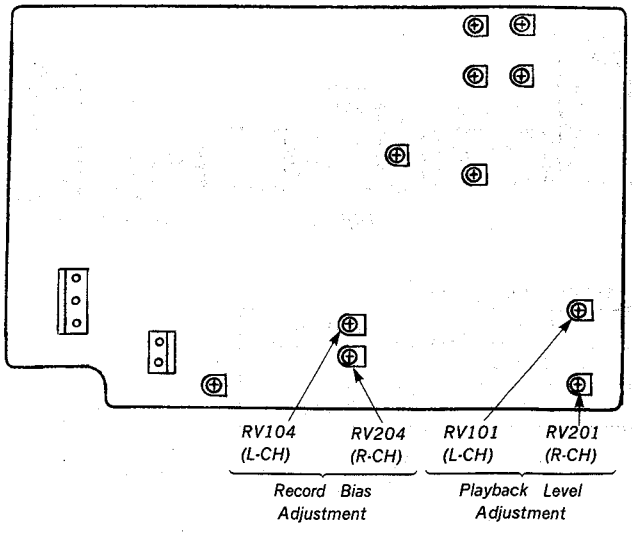


2. Mode : Playback



Adjust RV104, 204 so that playback output of 10KHz is 0± 0.5dB.

Adjustment Location : audio/system control board



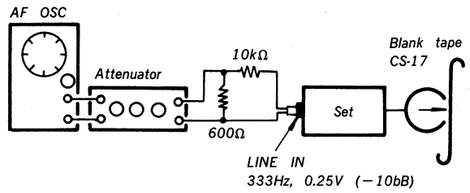
RECORD LEVEL ADJUSTMENT

Setting :

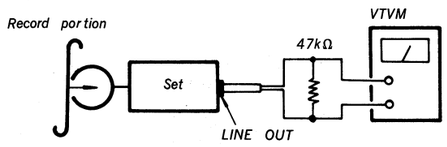
REC LEVEL knob shall be at the specified record position (See page 5.)

Procedure :

1. Mode Record :



2. Mode Playback :



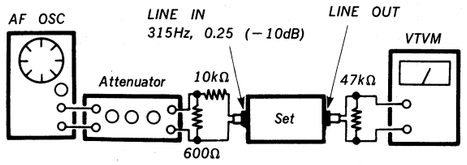
Specification :

LINE OUT Lerel : CS-17
0.41 to 0.46V
(−5.5 to −4.5dB)

LEVEL METER ADJUSTMENT

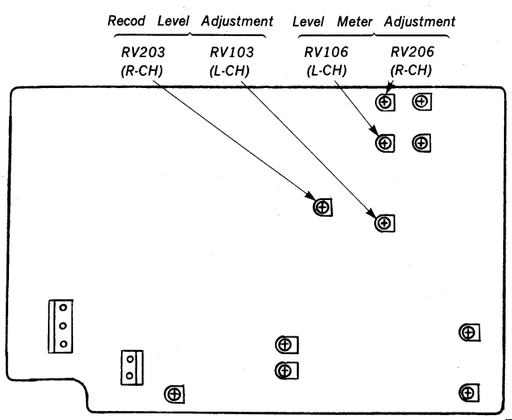
Procedure :

1. Mode Record :



2. Adjust REC LEVEL (RV301) so the levl of LINE OUT is −5bB
3. Adjust RV106 (L-CH) 206 (R-CH) so that 0VU (−4dB) segment of meter light on.
4. Be sure that all meters go on when setting the LINE OUT level to −19dB.

Adjustment Location : audio/system control board

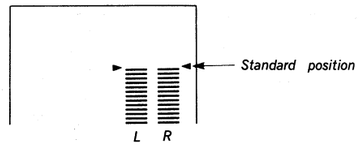


CAL METER(1) LEVEL ADJUNTMENT

Setting :

- REC CAL knob ..... center (center click)
- Connect CNN504 (CAL mode) of system controd board to GND-terminal os shown in the diagram (display tube shows CAL-display, and CAL oscillation state (mode) in obtained)

CAL-mode display



Procedure :

1. Record for about 10 seconds by setinb the blank tape CS-17 to record mode.
2. Be sure that the sagment lower by one from standard position on the meter goes on at playback time of record part.
   In other cases, adjust RV105 (L-CH) and RV205 (R-CH), them, adjust 1 and 2.
3. After adjustment, disaonnect CNN504.

QUICK REVERSE SENSITIVITY ADJUSTMENT

Setting :

Direction mode switch : ⟲

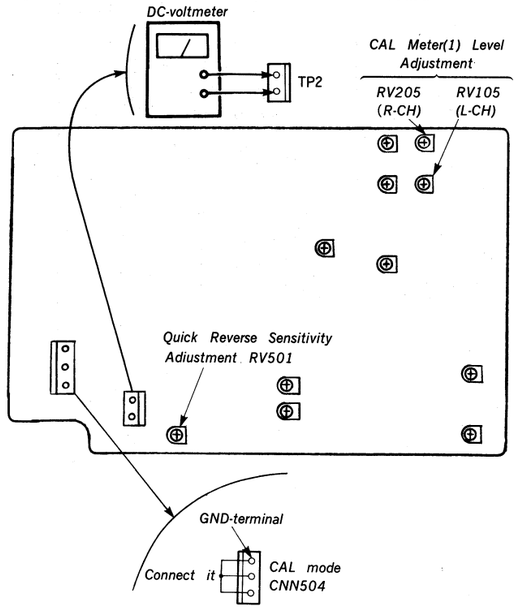
Procedure :

1. Connect DC -voltmeter to TP 2 of systen control board.
2. Mount the vacant (blank) cassette to set FWD mode.
3. Adjust RV501 so that the reading of DC-voltmter is 10V.

Specification : 10V±0.5V

4. Pepeat FWD and Stop 2−3 times, and again check the voltage.
5. Be sure that reverse is made at the connected part betweew leader tape and magnetic body.

Adjustmest Location : audio/systhm control board

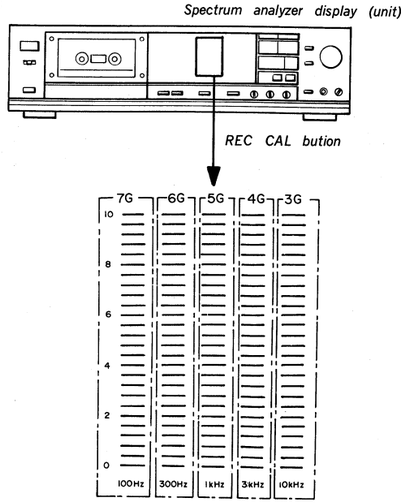


CAL METER(2) LEVEL ADJUSTMENT

Setting :

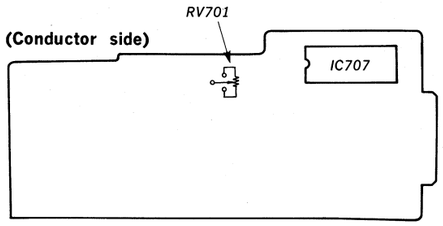
- REC CAL knob ..... Conten (Center Click)
- BIAS ADJ knob ..... Conten (Center Click)

Procedure :



1. Use the blonk tope CS-17 and press REC CAL bution
   - REC CAL mode state
     (With the record of test-tone for alout 10 seconds, it is automatically revound by 0.00 and playback is made.)
2. During playback time bo sure that the meoer of 10kHz and 300Hz at the spectrum-analyzer display is swinging.
3. Adjust RV701 so that level of 10k meter is matched to the level of 300Hz.

Adjustment Location : FL board



CAL OSC LEVEL ADJUSTMENT

Setting :

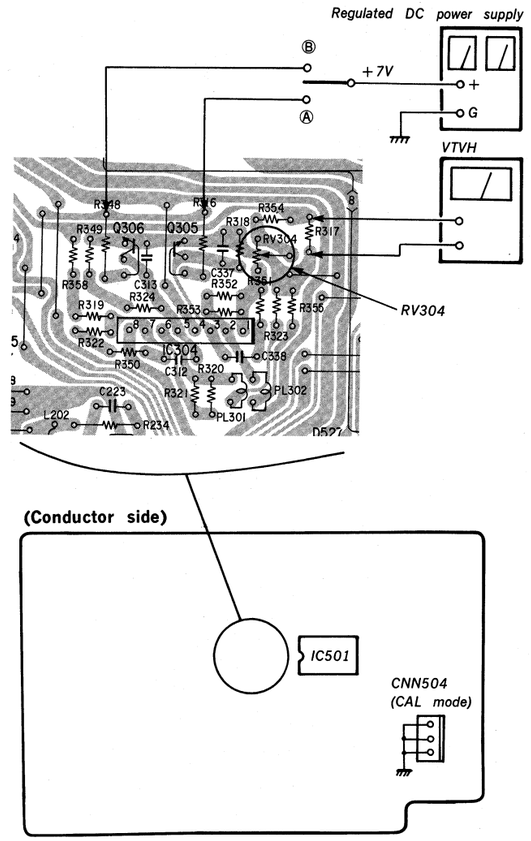
- REC CAL knob.....Center (center click)
- Connect CNN504 (CAL mode) of system coutorel board to GND-terminal.

(Display tube shows CAL display being set to CAL oscillation mode.)

Procedure :

1. Connect DC-power to the side of Ⓐ and read and memoringe the meter of VTVM.
2. Connect DC-power supply to the side of Ⓑ, and read the level of VTVM, them adist the level of "1".
3. Sfter adjustment, dis connect CNN504.

Connecting and adjusting location : audio/sysseem control board



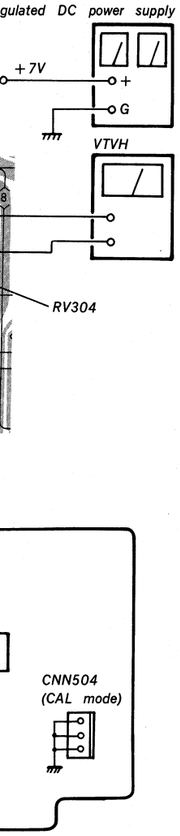
r click)
stem coutorel board

being set to CAL)

Ⓐ and read and

of Ⓑ, and read the
el of "1".
04.
io/systeem control
rd

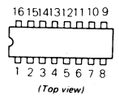
gulated DC power supply



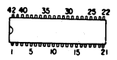
SECTION 4
DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

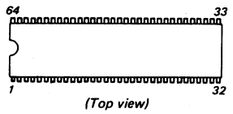
CX10034
TC4019BP



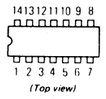
CX20187
LC7566



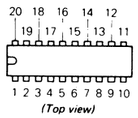
HD614042SA87



M4066BP
TC4069UBP
μPD4066BC



M50761-417P

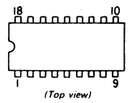


M5201L
M5218L

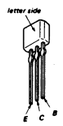
M5218P
M5220P
μPC4570C

NJM2903S
μPC4570HA

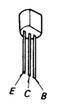
μPC1297CA



BA1A4M
BN1A4M
BN1L4M
2SA1150
2SA1175



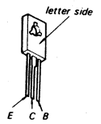
2SA952
2SB642



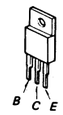
2SA1346
2SC634SP
2SC3399
2SC3400
2SC3901

2SA1409-L
2SB1013
2SC2001
2SC3622-L
2SD1387

2SB548
2SD414
2SD774
2SD809

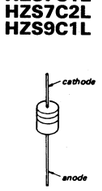


2SD1585-L

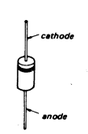


2SK246-GR2

HZS11B3L
HZS12C1L
HZS6A1L
HZS7B2L
HZS7C1L
HZS7C2L
HZS9C1L

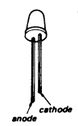


1SS132
10E2

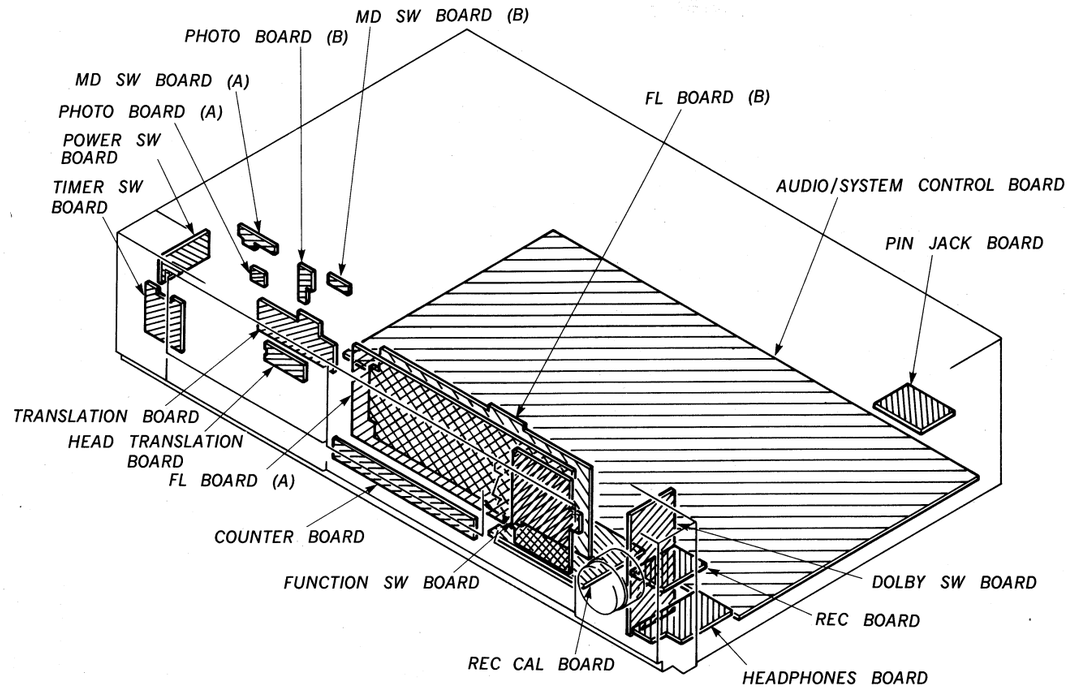


AY5638S

BG5628S
BR5628S



4-2. CIRCUIT BOARD LOCATION

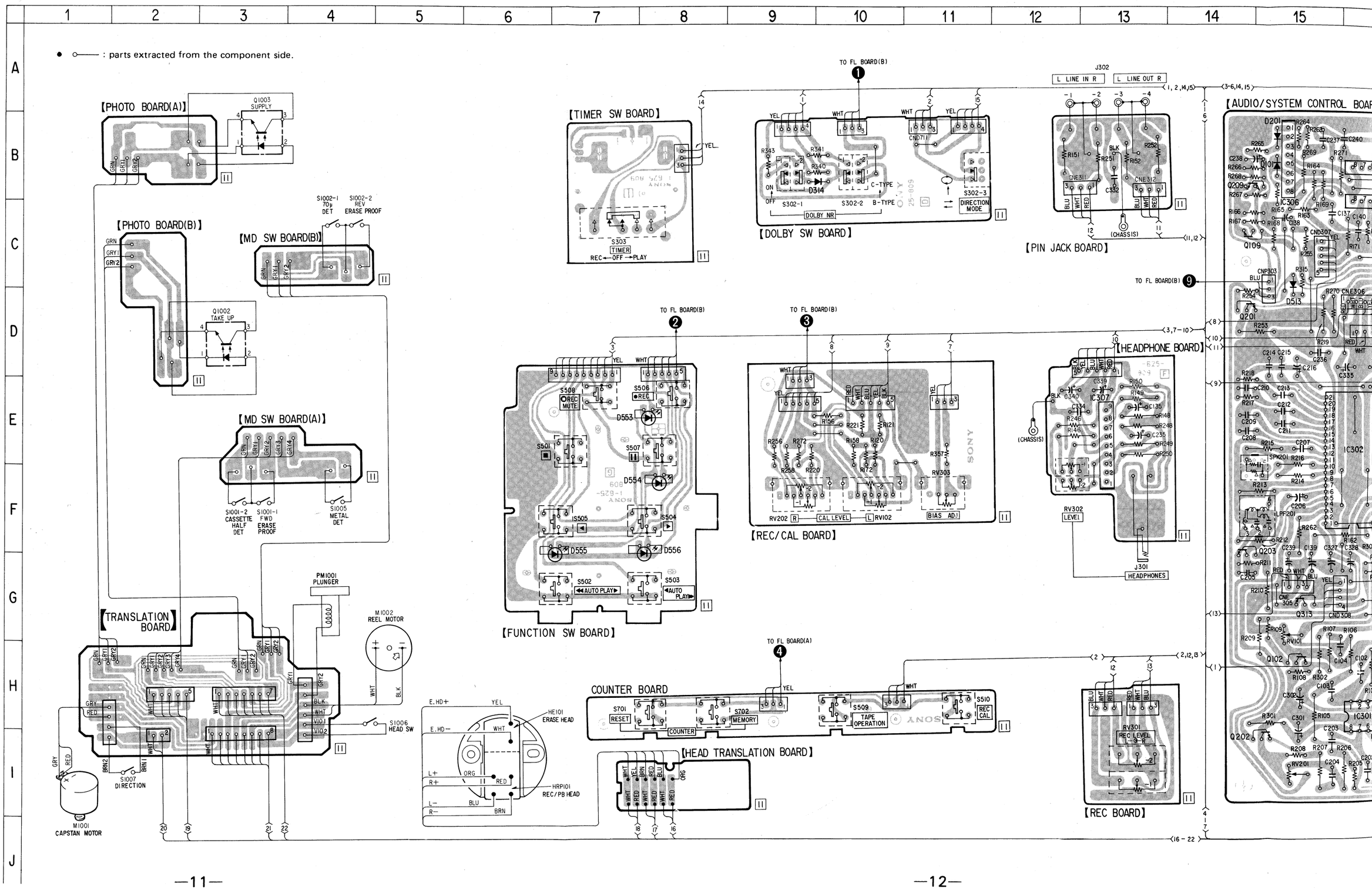


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-15	D518	B-26	IC306	B-15	Q304	G-17	Q516	C-24
D201	B-15	D519	B-22	IC307	E-13	Q305	E-20	Q518	I-23
D301	I-17	D520	D-22	IC308	D-18	Q306	E-20	Q519	F-23
D302	E-23	D521	C-25	IC501	E-22	Q307	E-19	Q520	F-23
D303	I-21	D522	D-26	IC502	F-24	Q308	G-22	Q521	F-22
D305	F-21	D523	C-22	IC503	H-25	Q309	G-22	Q525	E-26
D306	F-21	D524	C-22	IC504	H-22	Q310	F-21	Q526	F-26
D307	D-17	D525	F-23	IC505	D-25	Q311	G-21	Q527	F-26
D308	D-17	D527	F-21	IC506	F-25	Q312	G-16	Q528	F-25
D310	G-22	D528	F-22			Q313	G-15	Q529	G-25
D311	G-22	D530	E-22	Q101	D-17	Q315	I-20	Q530	G-25
D312	I-24	D531	E-24	Q102	H-15	Q316	H-20	Q531	G-26
D313	I-24	D532	G-21	Q103	F-17	Q317	H-21	Q532	G-25
D314	B-10	D533	G-21	Q104	E-18	Q318	H-21	Q533	F-25
D501	B-20	D534	C-25	Q105	E-18	Q319	H-20	Q534	I-23
D502	B-21	D540	B-23	Q106	H-17	Q320	H-20	Q535	I-22
D503	B-20	D548	F-26	Q107	F-17	Q501	B-19	Q536	I-22
D504	B-21	D549	F-26	Q108	F-17	Q502	B-19	Q537	G-22
D505	B-21	D550	C-25	Q109	C-14	Q503	B-19	Q538	C-22
D506	B-21	D553	E-8	Q201	D-14	Q504	B-19	Q539	E-23
D507	B-22	D554	F-8	Q202	I-15	Q505	C-19	Q540	F-23
D508	B-21	D555	F-7	Q203	G-14	Q506	C-19	Q541	F-23
D519	B-21	D556	F-8	Q204	D-19	Q507	C-19	Q542	C-26
D510	B-19			Q205	E-19	Q508	D-19	Q543	C-25
D511	B-23	IC101	C-16	Q206	G-20	Q509	I-23	Q544	C-25
D512	F-23	IC201	B-16	Q207	F-20	Q510	G-23	Q1002	D-3
D513	C-15	IC301	H-16	Q208	F-20	Q511	B-25	Q1003	B-3
D514	C-22	IC302	E-16	Q209	B-15	Q512	B-26		
D515	B-24	IC303	G-19	Q301	B-17	Q513	D-22		
D516	B-24	IC304	E-20	Q302	H-17	Q514	D-23		
D517	B-24	IC305	H-19	Q303	G-16	Q515	C-25		

4-3. PRINTED WIRING BOARD—AUDIO/SYSTEM CONTROL SECTION—

· Refer to page 9 for Semiconductor Lead Layouts.
· Refer to page 10 for Semiconductor Location.



14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

【AUDIO/SYSTEM CONTROL BOARD】

TO FL BOARD(B) 10

TO FL BOARD 12

IC201 IC101 IC306 IC302 IC301 IC303 IC305 IC304 IC501 IC504 IC505 IC506 IC502 IC503

Q201 Q109 Q203 Q209 Q101 Q301 Q303 Q312 Q313 Q102 Q202 Q103 Q107 Q108 Q105 Q104 Q204 Q205 Q302 Q307 Q306 Q305 Q316 Q318 Q317 Q320 Q319 Q501 Q502 Q503 Q504 Q505 Q506 Q507 Q508 Q513 Q514 Q538 Q516 Q515 Q543 Q544 Q542 Q534 Q511 Q512 Q525 Q533 Q527 Q526 Q548 Q549 Q540 Q541 Q520 Q521 Q519 Q510 Q309 Q308 Q310 Q311 Q312 Q313 Q314 Q315 Q509 Q535 Q536 Q537 Q530 Q531 Q532 Q529 Q528 Q527 Q526 Q552

D201 D513 D307 D308 D301 D501 D502 D503 D504 D505 D506 D507 D508 D509 D510 D519 D517 D516 D518 D522 D534 D550 D540 D530 D531 D532 D533 D305 D306 D310 D311 D512 D303 D312 D313 D527 D528 D525 D526 D524 D514 D523 D620 D621 D622 D623 D624 D625 D626 D627 D628 D629 D630 D631 D632 D633 D634 D635 D636 D637 D638 D639 D640 D641 D642 D643 D644 D645 D646 D647 D648 D649 D650 D651 D652 D653 D654 D655 D656 D657 D658 D659 D660 D661 D662 D663 D664 D665 D666 D667 D668 D669 D670 D671 D672 D673 D674 D675 D676 D677 D678 D679 D680 D681 D682 D683 D684 D685 D686 D687 D688 D689 D690 D691 D692 D693 D694 D695 D696 D697 D698 D699 D700 D701 D702 D703 D704 D705 D706 D707 D708 D709 D710 D711 D712 D713 D714 D715 D716 D717 D718 D719 D720 D721 D722 D723 D724 D725 D726 D727 D728 D729 D730 D731 D732 D733 D734 D735 D736 D737 D738 D739 D740 D741 D742 D743 D744 D745 D746 D747 D748 D749 D750 D751 D752 D753 D754 D755 D756 D757 D758 D759 D760 D761 D762 D763 D764 D765 D766 D767 D768 D769 D770 D771 D772 D773 D774 D775 D776 D777 D778 D779 D780 D781 D782 D783 D784 D785 D786 D787 D788 D789 D790 D791 D792 D793 D794 D795 D796 D797 D798 D799 D800 D801 D802 D803 D804 D805 D806 D807 D808 D809 D810 D811 D812 D813 D814 D815 D816 D817 D818 D819 D820 D821 D822 D823 D824 D825 D826 D827 D828 D829 D830 D831 D832 D833 D834 D835 D836 D837 D838 D839 D840 D841 D842 D843 D844 D845 D846 D847 D848 D849 D850 D851 D852 D853 D854 D855 D856 D857 D858 D859 D860 D861 D862 D863 D864 D865 D866 D867 D868 D869 D870 D871 D872 D873 D874 D875 D876 D877 D878 D879 D880 D881 D882 D883 D884 D885 D886 D887 D888 D889 D890 D891 D892 D893 D894 D895 D896 D897 D898 D899 D900 D901 D902 D903 D904 D905 D906 D907 D908 D909 D910 D911 D912 D913 D914 D915 D916 D917 D918 D919 D920 D921 D922 D923 D924 D925 D926 D927 D928 D929 D930 D931 D932 D933 D934 D935 D936 D937 D938 D939 D940 D941 D942 D943 D944 D945 D946 D947 D948 D949 D950 D951 D952 D953 D954 D955 D956 D957 D958 D959 D960 D961 D962 D963 D964 D965 D966 D967 D968 D969 D970 D971 D972 D973 D974 D975 D976 D977 D978 D979 D980 D981 D982 D983 D984 D985 D986 D987 D988 D989 D990 D991 D992 D993 D994 D995 D996 D997 D998 D999 D1000

THP501 THP502

CNJ501 SYNC

CNJ502 CONTROL S IN OUT

T501 POWER TRANSFORMER

AC IN WHT

US,CANADIAN MODEL

AEP MODEL UK MODEL AC IN BRN BLU

AEP,UK MODEL

E MODEL S511 VOLTAGE 220V 240V 120V YEL GRY WHT ORG GRY BLU

【POWER SW BOARD】 S301 POWER ON OFF

Q1001 QUICK REVERSE DET RED WHT BLK

TO FL BOARD(B) 14

TO FL BOARD(B) 11

TO FL BOARD(A) 5

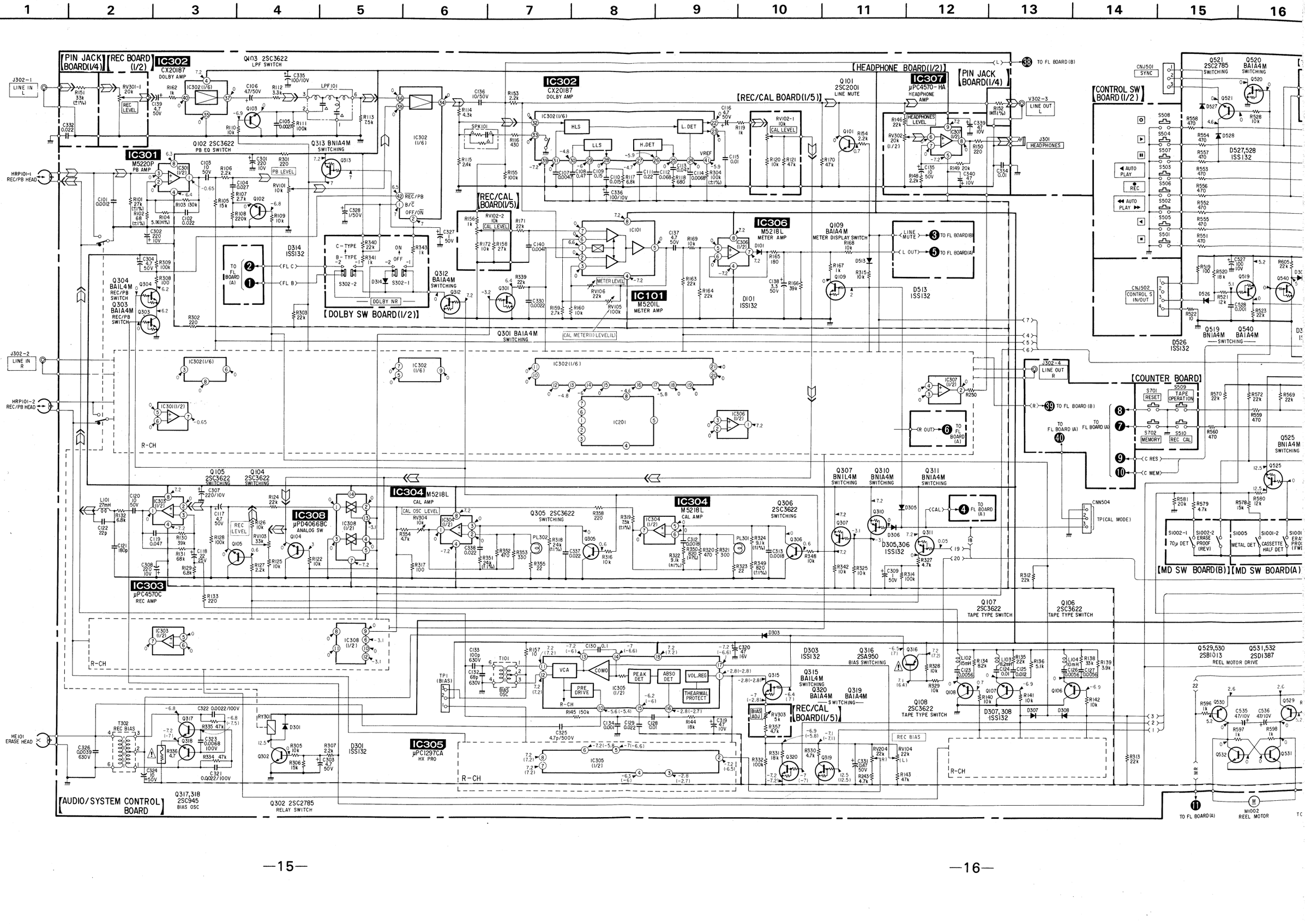
TO FL BOARD(B) 6

TO FL BOARD(B) 7 15

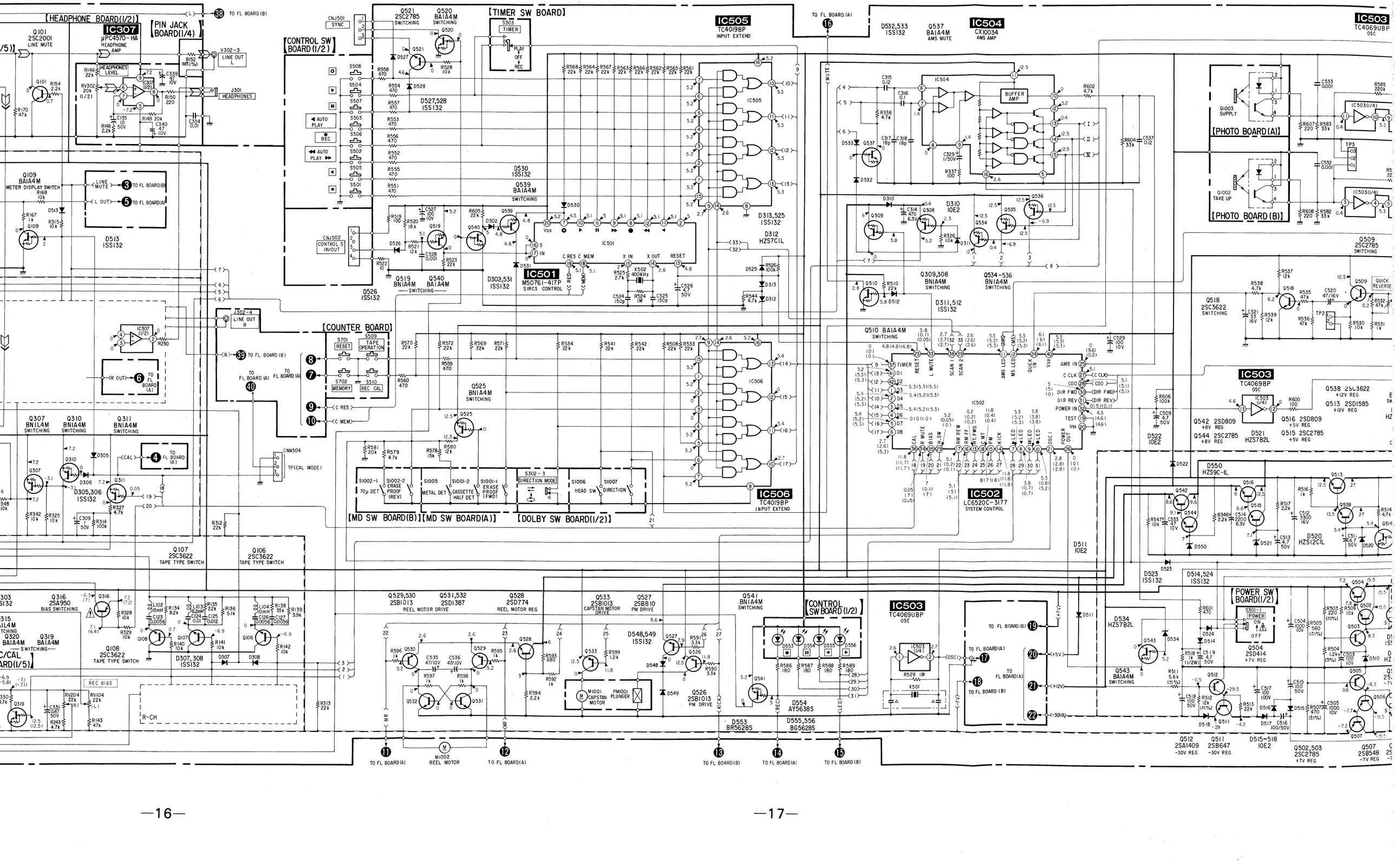
TO FL BOARD(B) 8 13

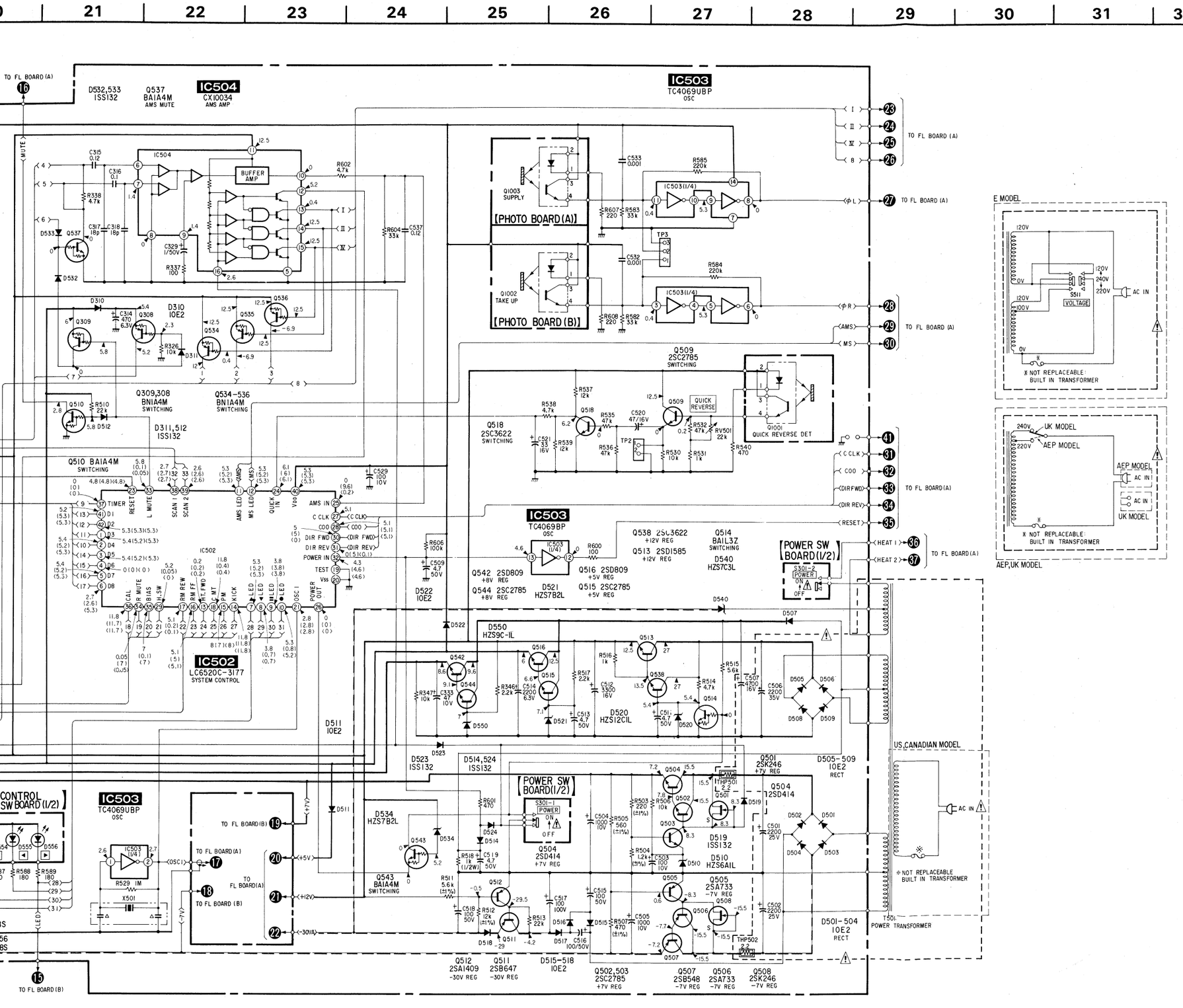
TO FL BOARD(B) 17 16 7 18 19

4-4. SCHEMATIC DIAGRAM—AUDIO/SYSTEM CONTROL SECTION—



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27





Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- Components for right channel have same values as for left channel. Reference numbers are coded from 200.
- : fusible resistor.
- Switch

Ref. No.	Switch	Position
S301	POWER	OFF
S302-1	DOLBY NR	OFF
S302-2	DOLBY NR	B
S302-3	DIRECTION MODE	⇄
S303	TIMER	OFF
S501	■	OFF
S502	◀◀ AUTOFLAY	OFF
S503	▶▶ AUTO PLAY	OFF
S504	▶	OFF
S505	◀	OFF
S506	● REC	OFF
S507	❚❚	OFF
S508	○	OFF
S509	TAPE OPERATION	OFF
S510	REC CAL	OFF
S701	RESET	OFF
S702	MEMORY	OFF
S1001-1	ERASE PROOF (FWD)	OFF
S1001-2	CASSETTE HALF DET	OFF
S1002-1	70μDET	OFF
S1002-2	ERASEPROOF (REV)	OFF
S1005	METEL DET	OFF
S1006	HEAD SW	OFF
S1007	DIRECTION	OFF

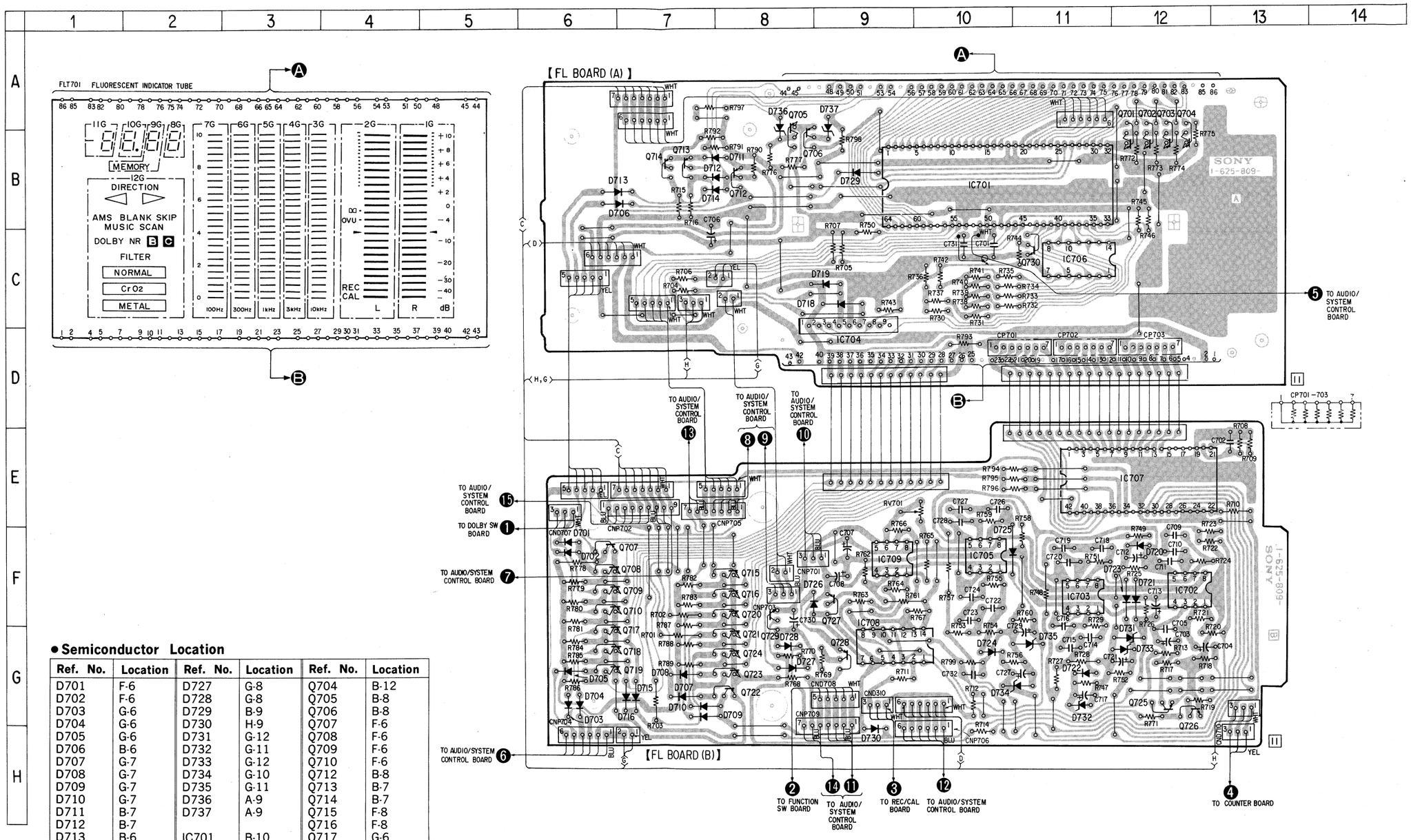
- : B+ Line
- : B– Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
  ( ) : REC
  < > : PLAY
- Voltages are taken with a VOM (50 kΩ/V). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : PB
  : REC

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-5. PRINTED WIRING BOARD—DISPLAY SECTION—

- ○—— : parts extracted from the component side.



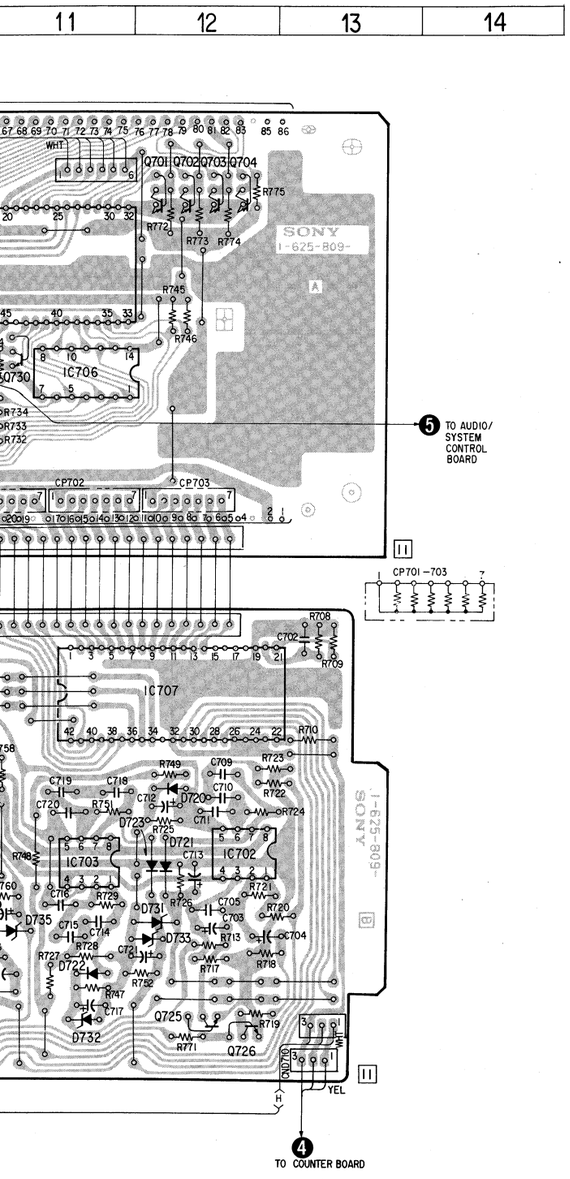
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D701	F-6	D727	G-8	Q704	B-12
D702	F-6	D728	G-8	Q705	B-8
D703	G-6	D729	B-9	Q706	B-8
D704	G-6	D730	H-9	Q707	F-6
D705	G-6	D731	G-12	Q708	F-6
D706	B-6	D732	G-11	Q709	F-6
D707	G-7	D733	G-12	Q710	F-6
D708	G-7	D734	G-10	Q712	B-8
D709	G-7	D735	G-11	Q713	B-7
D710	G-7	D736	A-9	Q714	B-7
D711	B-7	D737	A-9	Q715	F-8
D712	B-7			Q716	F-8
D713	B-6	IC701	B-10	Q717	G-6
D714	B-7	IC702	F-12	Q718	G-6
D715	G-7	IC703	F-11	Q719	G-6
D716	G-7	IC704	C-9	Q720	F-8
D718	C-9	IC705	F-10	Q721	G-8
D719	C-9	IC706	C-11	Q722	G-8
D720	F-12	IC707	E-12	Q723	G-8
D721	F-12	IC708	G-9	Q724	G-8
D722	G-11	IC709	F-9	Q725	G-12
D723	F-12			Q726	G-12
D724	G-10	Q701	B-12	Q727	F-9
D725	F-10	Q702	B-12	Q728	G-9
D726	F-8	Q703	B-12	Q729	F-8
				Q730	C-11

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- ▬▬ : B+ Line
- ▬ ▬ : B− Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.

4-6. SCHEMATIC DIAGRAM —DISPLAY SECTION—



- ▬▬ : B+ Line
- ▬ ▬ ▬ : B– Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.

herwise noted. pF: μμF
except for electrolytics

r less unless otherwise

8 9 10 11 12 13 14 15 16 17 18 19 20 22

A B C D E F G H I J

RD(B)(I/3)] Q707-710 BN1F4M SWITCHING

Q715-724 BN1F4M SWITCHING

D707-710 ISS132

Q723 BN1F4M SWITCHING

Q724 BN1F4M SWITCHING

D706,711-714 ISS132

Q712-714 BN1F4M SWITCHING

D701-705 ISS132

D715,716 ISS132

D729 ISS132

IC701 HD614042SA87 METER MICRO COMPUTER

IC701

IC706 TC4069UBP A/D BUFFER

IC706

Q730 BA1F4M SWITCHING

D718,719 ISS132

IC704 NJM2903S COMPARATOR

IC704

IC703 M5218P FILTER AMP

IC705 M5218P FILTER AMP

D723-725 ISS133

IC708 μPD4066BC ANALOG SWITCH

IC709 M5218P AMP

IC708 μPD4066BC ANALOG SWITCH

Q727 BA1F4M SWITCHING

D726-728 ISS132

D732 HZS6AIL

D733 HZS6AIL

D734 HZS6AIL

D735 HZS6A-IL

D730 ISS132

Q728 BN1F4M SWITCHING

Q729 BA1A4M SWITCHING

MEMORY

DIRECTION

AMS/BLANK SKIP
MUSIC SCAN

DOLBY NR B C

FILTER

NORMAL

CrO2

METAL

100Hz 300Hz 1kHz 3kHz 10kHz L R dB

REC CAL

TO AUDIO/SYSTEM CONTROL BOARD

TO COUNTER BOARD

SECTION 5
EXPLODED VIEWS

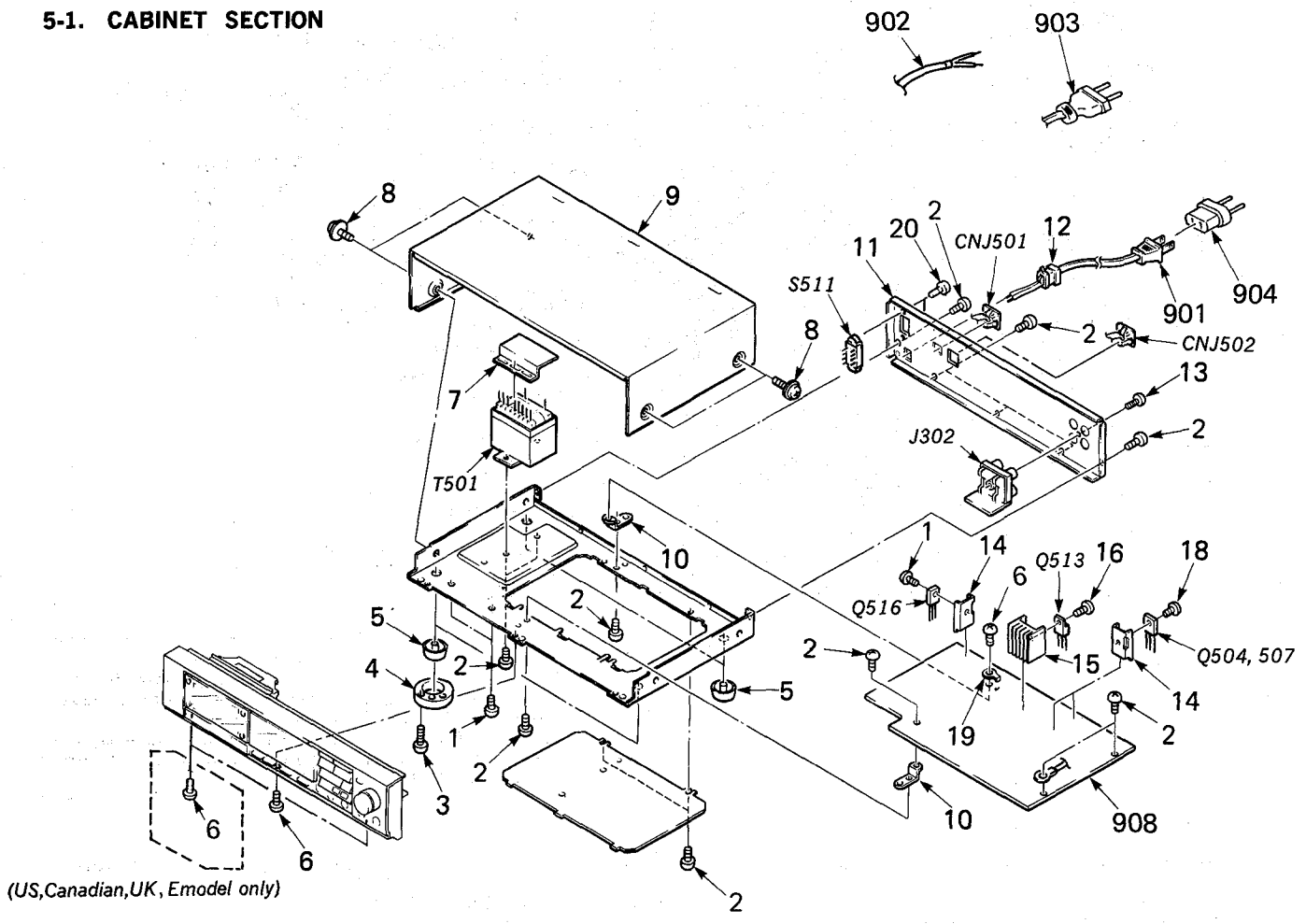
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

5-1. CABINET SECTION

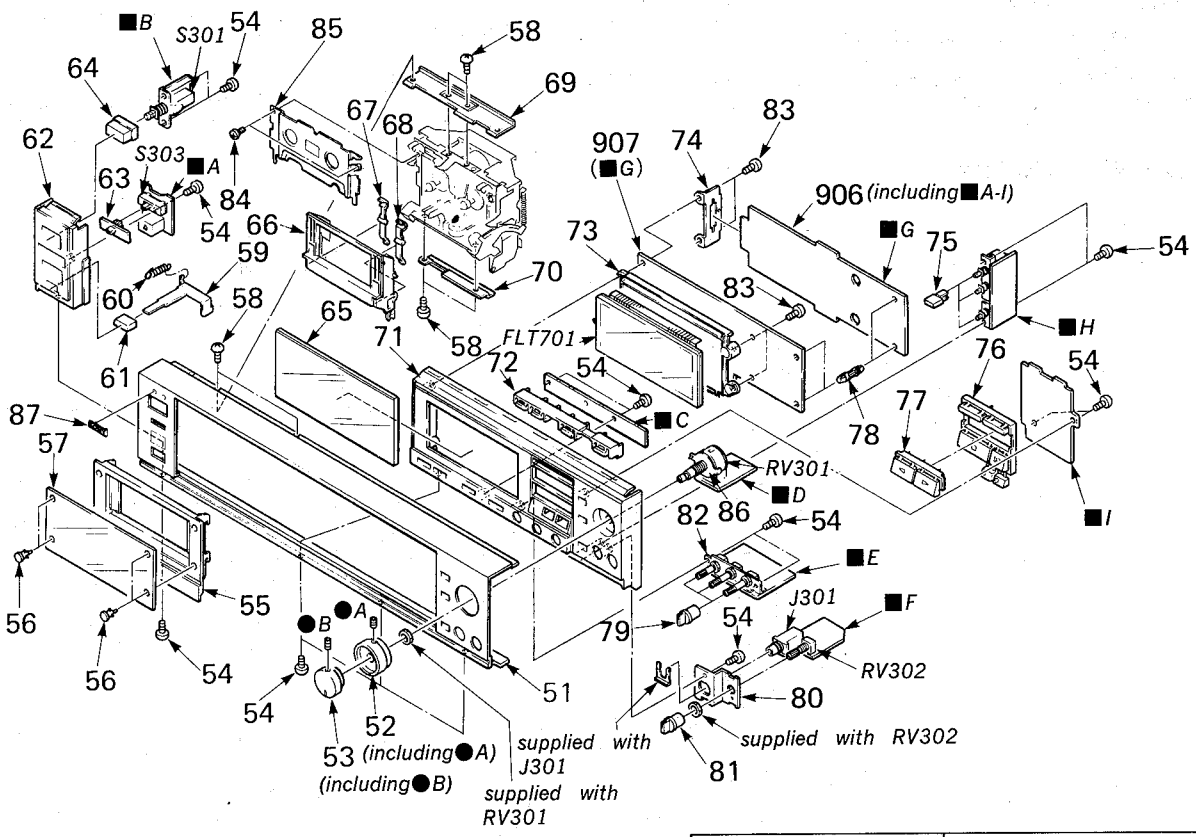


(US,Canadian,UK, Emodel only)

Ref.No	Part No.	Description	Remark
1	7-682-147-01	SCREW +BVTT 3X6 (S)	
2	7-682-548-04	SCREW +BVTT 3X8 (S)	
3	7-685-873-09	(AEP)....SCREW +BVTT 3X10 (S)	
4	3-332-580-01	(AEP)....COVER (FOOT)	
5	X-4922-001-1	FOOT ASSY	
6	3-703-685-21	SCREW (+BV 3X8)	
7	*3-337-136-01	COVER, TRANSFORMER SAFETY	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	3-332-578-01	CASE	
10	*3-332-563-01	BRACKET (P)	
11	*3-332-577-01	(US)....PANEL,BACK	
11	*3-332-577-11	(UK)....PANEL,BACK	
11	*3-332-577-21	(AE1)....PANEL, BACK	
11	*3-332-577-31	(AE2)....PANEL, BACK	
11	*3-332-577-41	(E)....PANEL,BACK	
12	3-703-244-00	(EXCEPT FOR E)....BUSHING (2104), CORD	
12	3-703-571-00	(E)....BUSHING (S) (4516), CORD	
13	7-621-849-00	SCREW, TAPPING	
14	*4-861-002-00	HEAT SINK	
15	*4-363-146-21	HEAT SINK, V.OUT	

Ref.No	Part No.	Description	Remark
16	7-685-646-79	SCREW BVTP 3X8 TYPE2 IT-3	
17	----------		
18	7-682-147-15	SCREW, TR	
19	4-870-539-00	PLATE, GROUND	
20	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
901	⚠1-551-188-XX	(E)....CORD, POWER	
901	⚠1-551-511-00	(US, Canadian)....CORD, POWER	
902	⚠1-556-035-00	(UK)....CORD, POWER	
903	⚠1-555-795-00	(AEP)....CORD, POWER, EULO PLUG	
904	⚠1-526-565-12	(E)....AC PLUG ADAPTOR	
908	*A-2056-415-A	(EXCEPT FOR US)....MOUNTED PCB, SYSTEM CONTROL	
908	*A-2056-460-A	(US)....MOUNTED PCB,SYSTEM CONTROL	
CNJ501	*1-558-520-11	CORD (WITH CONNECTOR) (SYNC)	
CNJ502	*1-559-235-11	CORD (WITH CONNECTOR) (SYNC)	
J302	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)	
S901	⚠1-570-307-11	(E)....SWITCH, VOLTAGE CHANGE	
T501	⚠1-449-272-11	(US, Canadian)....TRANSFORMER, POWER	
T501	⚠1-449-273-11	(AEP, UK)....TRANSFORMER, POWER	
T501	⚠1-449-274-11	(E)....TRANSFORMER, POWER	

5-2. FRONT PANEL SECTION

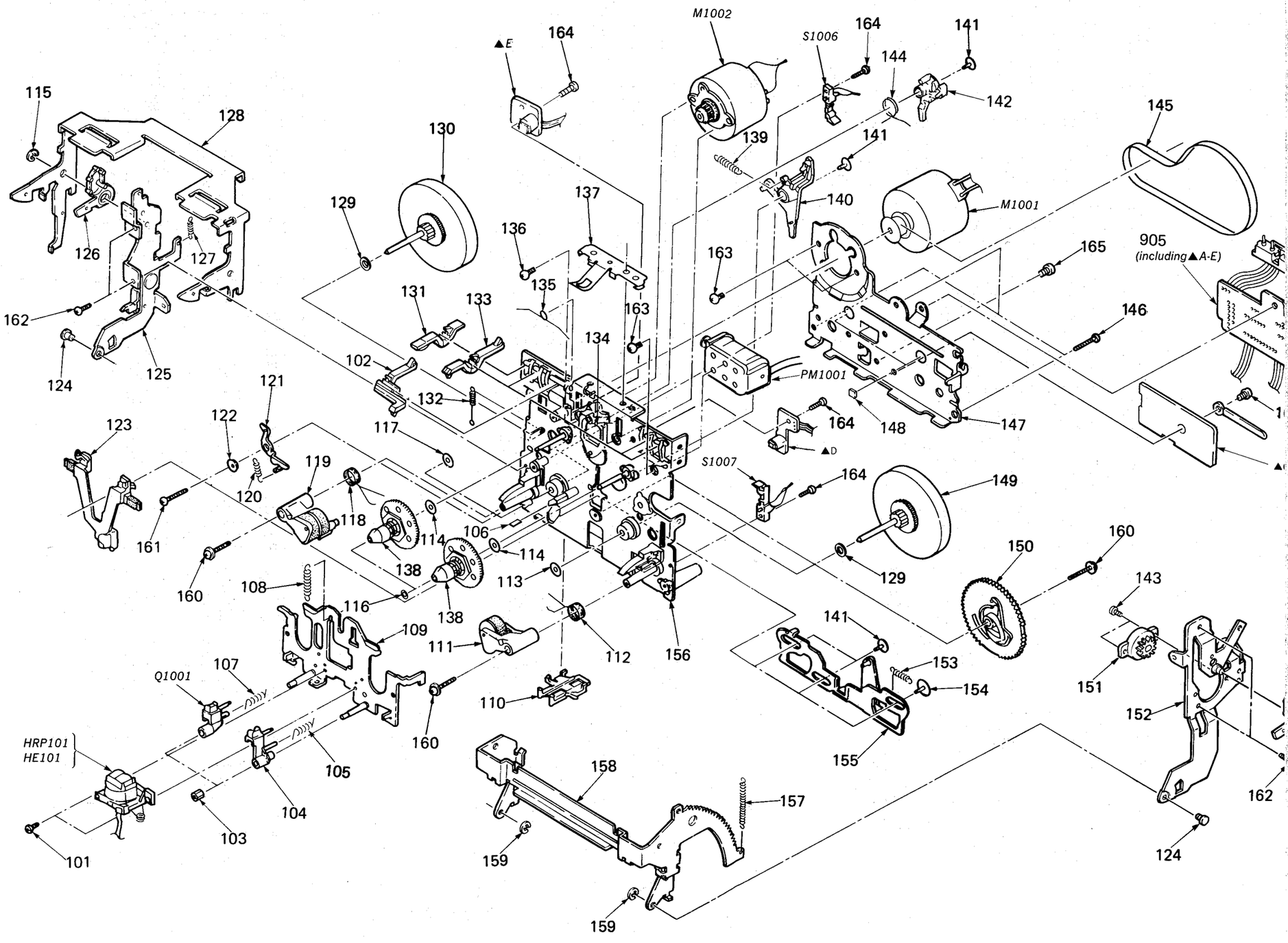


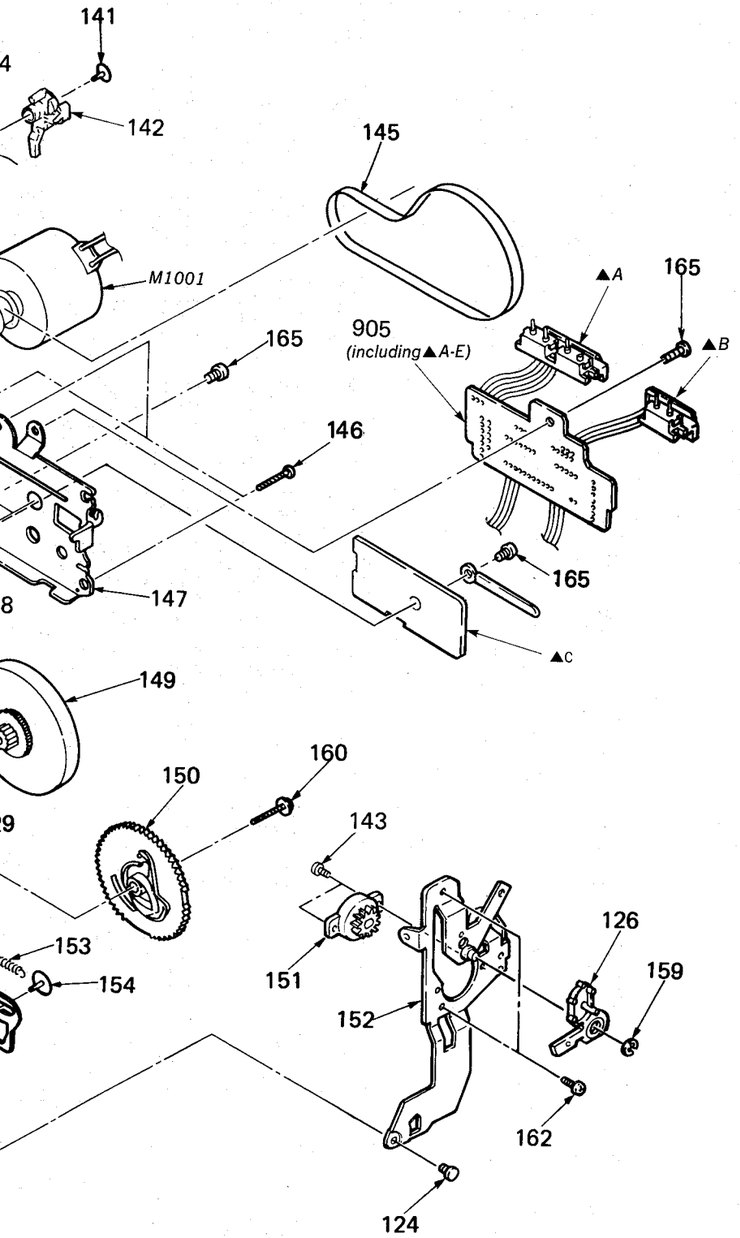
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description	Remark
51	3-332-572-11	(US, Canadian)....PANEL, FRONT	
51	3-332-575-21	(AEP, UK, E) PANEL, FRONT	
52	X-3332-530-1	KNOB (LEFT) ASSY	
53	X-3332-525-1	KNOB (RIGHT) ASSY	
54	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
55	3-332-572-01	(EXCEPT FOR US)....LID, CASSETTE	
55	3-332-572-11	(US)....LID, CASSETTE	
56	*3-337-123-01	PIN, STOPPER, CASSETTE WINDOW	
57	3-332-557-01	WINDOW (C)	
58	7-682-147-01	SCREW +BVTT 3X6 (S)	
59	*3-332-564-01	SLIDER (EJC)	
60	3-571-829-01	SPRING,TENSION	
61	3-323-410-31	BUTTON, EJECT	
62	3-332-574-01	ESCUTCHEON (LEFT)	
63	3-307-538-21	KNOB, SWITCH, TIMER	
64	4-917-460-01	KNOB, POWER	
65	3-332-571-01	WINDOW (M)	
66	X-3332-448-1	HOLDER ASSY, CASSETTE	
67	3-307-371-00	SPRING (LEFT)	
68	3-307-372-00	SPRING (RIGHT)	
69	*3-332-561-01	BRACKET (MDU)	
70	*3-332-560-01	BRACKET (MDB)	
71	3-332-576-01	ESCUTCHEON (RIGHT)	

Ref.No	Part No.	Description	Remark
72	3-332-570-01	BUTTON (C)	
73	*3-332-569-01	HOLDER (FL)	
74	*3-332-565-01	BRACKET (P2)	
75	4-864-410-21	KNOB (4X10), SQUARE	
76	X-3332-528-1	BUTTON (A) ASSY	
77	X-3332-529-1	BUTTON (B) ASSY	
78	*3-682-419-11	HOLDER, P.C.B	
79	4-921-921-11	KNOB (M)	
80	*3-332-559-01	BRACKET (HD)	
81	4-901-708-11	KNOB, LOV	
82	*3-332-562-01	BRACKET (CAL)	
83	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S	
84	7-621-772-00	SCREW +B 2X3	
85	*3-332-547-01	PLATE, ORNAMENTAL	
86	*3-330-012-01	LUG, REC VOL	
87	4-908-848-01	EMBLEM, SONY	
906	*A-2056-409-A	MOUNTED PCB, FL (■A-I)	
907	*1-625-809-11	PC BOARD, FL	
FLT701	1-519-446-11	INDICATOR TUBE, FLUORESCENT	
J301	1-507-796-21	JACK (HEADPHONES)	
RV301	1-226-740-00	RES, VAR, CARBON 20K/20K (REC LEVEL)	
S301	⚠1-570-103-21	SWITCH,PUSH (1 KEY) (POWER)	

5-3. MECHANISM SECTION
(TCM-CMAY B-22)





Ref.No	Part No.	Description	Remark
101	3-391-109-01	SCREW, WASHER	
102	3-391-193-01	LEVER, METAL	
103	3-391-110-01	NUT, ADJUSTMENT	
104	3-391-111-01	GUIDE, TAPE	
105	3-391-112-01	SPRING (RIGHT)	
106	3-391-162-01	REFLECTOR	
107	3-391-187-01	SPRING (LEFT)	
108	3-391-114-01	SPRING	
109	X-3391-154-1	PLATE ASSY, HEAD	
110	3-391-137-01	HOLDER, LEAD	
111	X-3391-104-1	PINCH ROLLER ASSY	
112	3-391-115-01	SPRING (RIGHT)	
113	3-391-119-01	SEAL,WASHER OIL	
114	3-701-437-11	WASHER	
115	7-624-105-04	STOP RING 2.3	
116	3-701-436-11	WASHER, 1.6	
117	3-391-117-01	SEAL, WASHER OIL	
118	3-391-116-01	SPRING (LEFT)	
119	X-3391-105-1	PINCH POLLER ASSY	
120	3-391-122-01	SPRING (A)	
121	3-391-121-01	ARM, EJECT SAFETY	
122	3-391-120-01	CALLOR	
123	X-3391-108-1	BRAKE ASSY	
124	3-391-183-01	SHAFT (B), HOLDER FULCRUM	
125	*X-3391-152-1	ARM ASSY, EJECT	
126	3-391-158-01	LEVER, STOP	
127	3-391-181-01	SPRING, RETURN LEVER	
128	*3-391-180-01	ARM,EJECT	
129	3-701-438-11	WASHER, 2.5	
130	X-3391-125-1	FLYWHEEL ASSY	
131	3-391-178-01	LEVER,PACK	
132	3-391-139-01	SPRING	
133	3-391-188-01	LEVER, REC	
134	X-3391-111-1	IDLER ASSY	
135	3-391-124-01	SPRING	
136	7-628-254-15	SCREW, WASHER	
137	3-391-177-01	SPRING	

Ref.No	Part No.	Description	Remark
138	X-3391-142-1	REEL (T) ASSY	
139	3-391-133-01	SPRING	
140	X-3391-146-1	ARM ASSY, PLAY	
141	3-391-126-01	CAP	
142	3-392-701-01	ARM, DIRECTION	
143	7-685-780-04	SCREW +PTT 2X3 (S)	
144	3-391-199-01	SPRING (DIRECTION)	
145	3-391-192-01	BELT, MAIN	
146	7-685-131-19	SCREW +P 2.6X4 TYPE2 NON-SLIT	
147	*3-391-130-01	BRACKET (B), F/W	
148	3-391-129-01	SPACER	
149	X-3391-145-1	FLYWHEEL ASSY	
150	3-391-197-01	GEAR (I), CAM	
151	X-3391-151-1	DAMPER ASSY	
152	*X-3391-150-1	BKT ASSY, DAMPER	
153	3-391-127-01	SPRING	
154	3-391-143-01	CAP	
155	X-3391-112-1	PLATE ASSY, SLIDE	
156	X-3391-110-1	CHASSIS ASSY	
157	3-391-184-01	SPRING	
158	*3-391-182-01	HOLDER, CASSETTE	
159	7-624-102-04	STOP RING 1.5, TYPE-E	
160	7-685-107-19	SCREW +P 2X12 TYPE2 SLIT	
161	7-685-105-19	SCREW +P 2X8 TYPE2 SLIT	
162	7-685-790-04	SCREW +PTT 2.6X4 (S)	
163	7-628-253-90	SCREW +PS 2.6X4	
164	7-685-104-19	SCREW +P 2X6 TYPE2 SLIT	
165	7-685-750-04	SCREW +PTT 3X5 (S)	
905	1-589-052-11	PCB BOARD ASSY	
HRP101 HE101	X-3391-143-1	HEAD ASSY, ROTARY	
M1001	X-3391-130-1	MOTOR ASSY	
M1002	X-3391-156-1	MOTOR ASSY	
PM1001	1-454-440-11	SOLENOID, PLUNGER	
S1006	1-570-719-11	SWITCH, LEAF	
S1007	1-570-721-11	SWITCH, LEAF	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description	Remark
901	⚠1-551-188-XX	(E)....CORD, POWER	
901	⚠1-551-511-00	(US, Canadian)....CORD, POWER	
902	⚠1-551-035-00	(UK)....CORD, POWER	
903	⚠1-555-795-00	(AEP)....CORD, POWER, EULO PLUG	
904	⚠1-526-565-12	(E)....AC PLUG ADAPTOR	
905	1-589-052-11	PCB BOARD ASSY	
906	*A-2056-409-A	MOUNTED PCB, FL	
907	*1-625-809-11	PC BOARD, FL	
908	*A-2056-406-A	(US)....MOUNTED PCB, SYSTEM CONTOL	
908	*A-2056-415-A	(EXCEPT FOR US)....MOUNTED PCB, SYSTEM CONTOL	

CAPACITOR

C101	1-110-222-11	MYLAR	0.0012MF	5%	50V
C102	1-130-487-00	MYLAR	0.022MF	5%	50V
C103	1-124-657-00	ELECT	10MF	20%	50V
C104	1-130-488-00	MYLAR	0.027MF	5%	50V
C105	1-106-353-00	MYLAR	0.0027MF	5%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V
C107	1-106-359-00	MYLAR	0.0047MF	5%	50V
C108	1-136-173-00	FILM	0.47MF	5%	50V
C109	1-136-167-00	FILM	0.15MF	5%	50V
C110	1-136-155-00	FILM	0.015MF	5%	50V
C111	1-136-169-00	FILM	0.22MF	5%	50V
C112	1-136-163-00	FILM	0.068MF	5%	50V
C113	1-136-161-00	FILM	0.047MF	5%	50V
C114	1-130-481-00	MYLAR	0.0068MF	5%	50V
C115	1-136-153-00	FILM	0.01MF	5%	50V
C116	1-124-927-11	ELECT	4.7MF	20%	50V
C117	1-124-927-11	ELECT	4.7MF	20%	50V
C118	1-124-908-11	ELECT	22MF	20%	25V
C119	1-110-241-11	MYLAR	0.047MF	5%	50V
C120	1-124-657-00	ELECT	10MF	20%	50V
C121	1-162-285-31	CERAMIC	180PF	10%	50V
C122	1-107-210-00	MICA	22PF	5%	500V
C123	1-130-480-00	MYLAR	0.0056MF	5%	50V
C124	1-130-483-00	MYLAR	0.01MF	5%	50V
C125	1-130-484-00	MYLAR	0.012MF	5%	50V
C126	1-130-480-00	MYLAR	0.0056MF	5%	50V
C127	1-130-480-00	MYLAR	0.0056MF	5%	50V
C128	1-136-153-00	FILM	0.01MF	5%	50V
C129	1-130-487-00	MYLAR	0.022MF	5%	50V
C130	1-136-165-00	FILM	0.1MF	5%	50V
C132	1-136-272-00	FILM	68PF	5%	630V
C133	1-136-433-11	FILM	100PF	5%	630V
C134	1-130-471-00	MYLAR	0.001MF	5%	50V
C135	1-123-875-11	ELECT	10MF	20%	50V
C136	1-124-657-00	ELECT	10MF	20%	50V
C137	1-124-274-00	ELECT	4.7MF	20%	50V
C138	1-123-382-00	ELECT	3.3MF	20%	50V
C139	1-124-927-11	ELECT	4.7MF	20%	50V
C140	1-130-479-00	MYLAR	0.0047MF	5%	50V
C201	1-110-222-11	MYLAR	0.0012MF	5%	50V
C202	1-130-487-00	MYLAR	0.022MF	5%	50V
C203	1-124-657-00	ELECT	10MF	20%	50V
C204	1-130-488-00	MYLAR	0.027MF	5%	50V
C205	1-106-353-00	MYLAR	0.0027MF	5%	50V
C206	1-124-927-11	ELECT	4.7MF	20%	50V
C207	1-106-359-00	MYLAR	0.0047MF	5%	50V
C208	1-136-173-00	FILM	0.47MF	5%	50V
C209	1-136-167-00	FILM	0.15MF	5%	50V
C210	1-136-155-00	FILM	0.015MF	5%	50V
C211	1-136-169-00	FILM	0.22MF	5%	50V
C212	1-136-163-00	FILM	0.068MF	5%	50V
C213	1-136-161-00	FILM	0.047MF	5%	50V
C214	1-130-481-00	MYLAR	0.0068MF	5%	50V
C215	1-136-153-00	FILM	0.01MF	5%	50V
C216	1-124-927-11	ELECT	4.7MF	20%	50V
C217	1-124-927-11	ELECT	4.7MF	20%	50V
C218	1-124-908-11	ELECT	22MF	20%	25V
C219	1-110-241-11	MYLAR	0.047MF	5%	50V
C220	1-124-657-00	ELECT	10MF	20%	50V
C221	1-162-285-31	CERAMIC	180PF	10%	50V
C222	1-107-210-00	MICA	22PF	5%	500V
C223	1-130-480-00	MYLAR	0.0056MF	5%	50V
C224	1-130-483-00	MYLAR	0.01MF	5%	50V
C225	1-130-484-00	MYLAR	0.012MF	5%	50V
C226	1-130-480-00	MYLAR	0.0056MF	5%	50V
C227	1-130-480-00	MYLAR	0.0056MF	5%	50V
C228	1-136-153-00	FILM	0.01MF	5%	50V
C229	1-130-487-00	MYLAR	0.022MF	5%	50V
C230	1-136-165-00	FILM	0.1MF	5%	50V
C232	1-136-272-00	FILM	68PF	5%	630V
C233	1-136-433-11	FILM	100PF	5%	630V
C234	1-130-471-00	MYLAR	0.001MF	5%	50V
C235	1-123-875-11	ELECT	10MF	20%	50V
C236	1-124-657-00	ELECT	10MF	20%	50V
C237	1-124-274-00	ELECT	4.7MF	20%	50V
C238	1-123-382-00	ELECT	3.3MF	20%	50V
C239	1-124-927-11	ELECT	4.7MF	20%	50V
C240	1-130-479-00	MYLAR	0.0047MF	5%	50V
C301	1-124-444-00	ELECT	220MF	20%	10V
C302	1-124-444-00	ELECT	220MF	20%	10V
C303	1-124-927-11	ELECT	4.7MF	20%	50V
C304	1-124-927-11	ELECT	4.7MF	20%	50V
C307	1-124-444-00	ELECT	220MF	20%	10V
C308	1-124-444-00	ELECT	220MF	20%	10V
C309	1-124-499-11	ELECT	1MF	20%	50V
C312	1-130-474-00	MYLAR	0.0018MF	5%	50V
C313	1-130-474-00	MYLAR	0.0018MF	5%	50V
C314	1-124-472-11	ELECT	470MF	20%	6.3V
C315	1-136-166-00	FILM	0.12MF	5%	50V
C316	1-136-165-00	FILM	0.1MF	5%	50V
C317	1-162-205-31	CERAMIC	18PF	5%	50V
C318	1-162-205-31	CERAMIC	18PF	5%	50V
C319	1-124-446-11	ELECT	47MF	20%	10V
C320	1-124-477-11	ELECT	47MF	20%	16V
C321	1-136-230-00	FILM	0.0022MF	5%	100V
C322	1-136-230-00	FILM	0.0022MF	5%	100V
C323	1-130-856-00	FILM	0.0068MF	5%	100V
C324	1-123-875-11	ELECT	10MF	20%	50V
C325	1-107-046-00	MICA	4.7PF	0.5PF	500V
C326	1-136-558-11	FILM	0.0039MF	5%	630V
C327	1-124-499-11	ELECT	1MF	20%	50V
C328	1-124-499-11	ELECT	1MF	20%	50V
C329	1-124-499-11	ELECT	1MF	20%	50V
C330	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C331	1-124-902-00	ELECT	0.47MF	20%	50V
C332	1-130-487-00	MYLAR	0.022MF	5%	50V
C333	1-124-446-11	ELECT	47MF	20%	10V
C334	1-161-379-00	CERAMIC	0.01MF	20%	25V
C335	1-124-443-00	ELECT	100MF	20%	10V
C336	1-124-443-00	ELECT	100MF	20%	10V
C337	1-136-157-00	FILM	0.022MF	5%	50V
C338	1-136-157-00	FILM	0.022MF	5%	50V
C339	1-124-446-11	ELECT	47MF	20%	10V
C340	1-124-446-11	ELECT	47MF	20%	10V
C501	⚠1-124-563-11	ELECT	2200MF	20%	25V
C502	⚠1-124-563-11	ELECT	2200MF	20%	25V
C503	1-124-443-00	ELECT	100MF	20%	10V
C504	1-124-473-11	ELECT	1000MF	20%	10V
C505	1-124-473-11	ELECT	1000MF	20%	10V
C506	1-124-618-11	ELECT	2200MF	20%	35V
C507	⚠1-124-898-11	ELECT	4700MF	20%	16V
C509	1-124-927-11	ELECT	4.7MF	20%	50V
C511	1-124-927-11	ELECT	4.7MF	20%	50V
C512	1-124-887-00	ELECT	3300MF	20%	16V
C513	1-124-927-11	ELECT	4.7MF	20%	50V
C514	1-124-893-11	ELECT	2200MF	20%	6.3V
C515	1-124-122-11	ELECT	100MF	20%	50V
C516	1-124-122-11	ELECT	100MF	20%	50V
C517	1-123-605-00	ELECT	100MF	20%	100V
C518	1-124-122-11	ELECT	100MF	20%	50V
C519	1-124-927-11	ELECT	4.7MF	20%	50V
C520	1-124-477-11	ELECT	47MF	20%	16V
C521	1-124-963-11	ELECT	33MF	20%	16V
C524	1-162-284-31	CERAMIC	150PF	10%	50V
C525	1-162-284-31	CERAMIC	150PF	10%	50V
C526	1-124-927-11	ELECT	4.7MF	20%	50V
C527	1-124-443-00	ELECT	100MF	20%	10V
C528	1-162-294-31	CERAMIC	0.001MF	10%	50V
C529	1-124-443-00	ELECT	100MF	20%	10V
C532	1-162-294-31	CERAMIC	0.001MF	10%	50V
C533	1-162-294-31	CERAMIC	0.001MF	10%	50V
C535	1-124-446-11	ELECT	47MF	20%	10V
C536	1-124-446-11	ELECT	47MF	20%	10V
C537	1-136-166-00	FILM	0.12MF	5%	50V
C701	1-161-379-00	CERAMIC	0.01MF	30%	16V
C702	1-130-473-00	MYLAR	0.0015MF	5%	50V
C703	1-124-499-11	ELECT	1MF	20%	50V
C704	1-124-908-11	ELECT	22MF	20%	25V
C705	1-162-215-31	CERAMIC	47PF	5%	50V
C706	1-123-661-00	ELECT	100MF	20%	6.3V
C707	1-124-477-11	ELECT	47MF	20%	16V
C708	1-124-477-11	ELECT	47MF	20%	16V
C709	1-136-154-00	FILM	0.012MF	5%	50V
C710	1-136-154-00	FILM	0.012MF	5%	50V
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-124-925-11	ELECT	2.2MF	20%	50V
C713	1-124-925-11	ELECT	2.2MF	20%	50V

Ref.No	Part No.
C714	1-130-478-00
C715	1-130-478-00
C716	1-162-215-31
C717	1-124-925-11
C718	1-130-474-00
C719	1-130-474-00
C720	1-162-215-31
C721	1-124-925-11
C722	1-130-473-00
C723	1-130-473-00
C724	1-162-215-31
C725	1-124-925-11
C726	1-130-474-00
C727	1-130-474-00
C728	1-162-215-31
C729	1-124-925-11
C730	1-124-908-11
C731	1-161-494-00
C732	1-136-170-00
CND304	*1-564-337-51
CND307	*1-564-339-51
CND308	*1-564-338-71
CND310	*1-564-337-51
CND502	*1-564-337-71
CND508	*1-564-338-51
CND509	*1-506-503-11
CND511	*1-564-339-71
CND707	*1-564-337-71
CND708	*1-564-339-51
CND710	*1-564-337-61
CND711	*1-564-337-81
CNE301	*1-564-509-11
CNE302	*1-564-506-11
CNE305	*1-564-506-11
CNE306	*1-564-508-11
CNE309	*1-564-508-11
CNE311	*1-564-506-11
CNE312	*1-564-506-11
CNE514	*1-564-506-11
CNJ501	*1-558-520-11
CNJ502	*1-559-235-11
CNN504	*1-560-061-00
CNP303	*1-564-705-21
CNP503	1-564-711-11
CNP505	*1-564-709-11
CNP507	*1-564-708-11
CNP513	*1-564-705-11
CNP515	*1-564-709-11
CNP516	*1-564-708-21
CNP519	*1-564-704-11
CNP701	*1-564-705-11
CNP702	1-564-711-11
CNP703	*1-564-705-21
CNP704	*1-564-708-21
CNP705	*1-564-709-11
CNP706	*1-564-708-11
CNP709	*1-564-709-11
CP701	1-232-967-11
CP702	1-232-967-11
CP703	1-232-967-11
D101	8-719-940-76
D201	8-719-940-76

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

			Remark
	47MF	20%	10V
	47MF	20%	16V
	0.0022MF	5%	100V
	0.0022MF	5%	100V
	0.0068MF	5%	100V
	10MF	20%	50V
	4.7PF	0.5PF	500V
	0.0039MF	5%	630V
	1MF	20%	50V
	1MF	20%	50V
	1MF	20%	50V
	0.0022MF	30%	16V
	0.47MF	20%	50V
	0.022MF	5%	50V
	47MF	20%	10V
	0.01MF	20%	25V
	100MF	20%	10V
	100MF	20%	10V
	0.022MF	5%	50V
	0.022MF	5%	50V
	47MF	20%	10V
	47MF	20%	10V
	2200MF	20%	25V
	2200MF	20%	25V
	100MF	20%	10V
	1000MF	20%	10V
	1000MF	20%	10V
	2200MF	20%	35V
	4700MF	20%	16V
	4.7MF	20%	50V
	4.7MF	20%	50V
	3300MF	20%	16V
	4.7MF	20%	50V
	2200MF	20%	6.3V
	100MF	20%	50V
	100MF	20%	50V
	100MF	20%	100V
	100MF	20%	50V
	4.7MF	20%	50V
	47MF	20%	16V
	33MF	20%	16V
	150PF	10%	50V
	150PF	10%	50V
	4.7MF	20%	50V
	100MF	20%	10V
	0.001MF	10%	50V
	100MF	20%	10V
	0.001MF	10%	50V
	0.001MF	10%	50V
	47MF	20%	10V
	47MF	20%	10V
	0.12MF	5%	50V
	0.01MF	30%	16V
	0.0015MF	5%	50V
	1MF	20%	50V
	22MF	20%	25V
	47PF	5%	50V
	100MF	20%	6.3V
	47MF	20%	16V
	47MF	20%	16V
	0.012MF	5%	50V
	0.012MF	5%	50V
	47PF	5%	50V
	2.2MF	20%	50V
	2.2MF	20%	50V

Ref.No	Part No.	Description			Remark
C714	1-130-478-00	MYLAR	0.0039MF	5%	50V
C715	1-130-478-00	MYLAR	0.0039MF	5%	50V
C716	1-162-215-31	CERAMIC	47PF	5%	50V
C717	1-124-925-11	ELECT	2.2MF	20%	50V
C718	1-130-474-00	MYLAR	0.0018MF	5%	50V
C719	1-130-474-00	MYLAR	0.0018MF	5%	50V
C720	1-162-215-31	CERAMIC	47PF	5%	50V
C721	1-124-925-11	ELECT	2.2MF	20%	50V
C722	1-130-473-00	MYLAR	0.0015MF	5%	50V
C723	1-130-473-00	MYLAR	0.0015MF	5%	50V
C724	1-162-215-31	CERAMIC	47PF	5%	50V
C725	1-124-925-11	ELECT	2.2MF	20%	50V
C726	1-130-474-00	MYLAR	0.0018MF	5%	50V
C727	1-130-474-00	MYLAR	0.0018MF	5%	50V
C728	1-162-215-31	CERAMIC	47PF	5%	50V
C729	1-124-925-11	ELECT	2.2MF	20%	50V
C730	1-124-908-11	ELECT	22MF	20%	25V
C731	1-161-494-00	CERAMIC	0.022MF		25V
C732	1-136-170-00	FILM	0.27MF	5%	50V
CND304	*1-564-337-51	PIN, CONNECTOR 3P			
CND307	*1-564-339-51	PIN, CONNECTOR 5P			
CND308	*1-564-338-71	PIN, CONNECTOR 4P			
CND310	*1-564-337-51	PIN, CONNECTOR 3P			
CND502	*1-564-337-71	PIN, CONNECTOR 3P			
CND508	*1-564-338-51	PIN, CONNECTOR 4P			
CND509	*1-506-503-11	PIN, CONNECTOR 9P			
CND511	*1-564-339-71	PIN, CONNECTOR 5P			
CND707	*1-564-337-71	PIN, CONNECTOR 3P			
CND708	*1-564-339-51	PIN, CONNECTOR 5P			
CND710	*1-564-337-61	PIN, CONNECTOR 3P			
CND711	*1-564-337-81	PIN, CONNECTOR 3P			
CNE301	*1-564-509-11	PLUG, CONNECTOR 6P			
CNE302	*1-564-506-11	PLUG, CONNECTOR 3P			
CNE305	*1-564-506-11	PLUG, CONNECTOR 3P			
CNE306	*1-564-508-11	PLUG, CONNECTOR 5P			
CNE309	*1-564-508-11	PLUG, CONNECTOR 5P			
CNE311	*1-564-506-11	PLUG, CONNECTOR 3P			
CNE312	*1-564-506-11	PLUG, CONNECTOR 3P			
CNE514	*1-564-506-11	PLUG, CONNECTOR 3P			
CNJ501	*1-558-520-11	CORD (WITH CONNECTOR) (SYNC)			
CNJ502	*1-559-235-11	CORD (WITH CONNECTOR) (CONTROL S)			
CNN504	*1-560-061-00	PIN, CONNECTOR 3P			
CNP303	*1-564-705-21	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP503	1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
CNP505	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP507	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP513	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP515	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP516	*1-564-708-21	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP519	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
CNP701	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP702	1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
CNP703	*1-564-705-21	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP704	*1-564-708-21	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP705	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP706	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP709	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CP701	1-232-967-11	COMPOSITION CIRCUIT BLOCK 100KX6			
CP702	1-232-967-11	COMPOSITION CIRCUIT BLOCK 100KX6			
CP703	1-232-967-11	COMPOSITION CIRCUIT BLOCK 100KX6			
D101	8-719-940-76	DIODE 1SS132			
D201	8-719-940-76	DIODE 1SS132			

mposants identifiés par
arque ⚠ sont critiques
sécurité.
remplacer que par une
ortant le numéro spéci-

Ref.No	Part No.	Description	Remark
D301	8-719-940-76	DIODE 1SS132	
D302	8-719-940-76	DIODE 1SS132	
D303	8-719-940-76	DIODE 1SS132	
D305	8-719-940-76	DIODE 1SS132	
D306	8-719-940-76	DIODE 1SS132	
D307	8-719-940-76	DIODE 1SS132	
D308	8-719-940-76	DIODE 1SS132	
D310	8-719-200-02	DIODE 10E2	
D311	8-719-940-76	DIODE 1SS132	
D312	8-719-933-49	DIODE HZS7C1L	
D313	8-719-940-76	DIODE 1SS132	
D314	8-719-940-76	DIODE 1SS132	
D501	⚠ 8-719-200-02	DIODE 10E2	
D502	⚠ 8-719-200-02	DIODE 10E2	
D503	⚠ 8-719-200-02	DIODE 10E2	
D504	⚠ 8-719-200-02	DIODE 10E2	
D505	⚠ 8-719-200-02	DIODE 10E2	
D506	⚠ 8-719-200-02	DIODE 10E2	
D507	8-719-200-02	DIODE 10E2	
D508	⚠ 8-719-200-02	DIODE 10E2	
D509	⚠ 8-719-200-02	DIODE 10E2	
D510	8-719-933-33	DIODE HZS6A1L	
D511	8-719-200-02	DIODE 10E2	
D512	8-719-940-76	DIODE 1SS132	
D513	8-719-940-76	DIODE 1SS132	
D514	8-719-940-76	DIODE 1SS132	
D515	8-719-200-02	DIODE 10E2	
D516	8-719-200-02	DIODE 10E2	
D517	8-719-200-02	DIODE 10E2	
D518	8-719-200-02	DIODE 10E2	
D519	8-719-940-76	DIODE 1SS132	
D520	8-719-933-79	DIODE HZS12C1L	
D521	8-719-933-47	DIODE HZS7B2L	
D522	8-719-200-02	DIODE 10E2	
D523	8-719-940-76	DIODE 1SS132	
D524	8-719-940-76	DIODE 1SS132	
D525	8-719-940-76	DIODE 1SS132	
D526	8-719-940-76	DIODE 1SS132	
D527	8-719-940-76	DIODE 1SS132	
D528	8-719-940-76	DIODE 1SS132	
D530	8-719-940-76	DIODE 1SS132	
D531	8-719-940-76	DIODE 1SS132	
D532	8-719-940-76	DIODE 1SS132	
D533	8-719-940-76	DIODE 1SS132	
D534	8-719-933-47	DIODE HZS7B2L	
D540	8-719-933-50	DIODE HZS7C2L	
D548	8-719-940-76	DIODE 1SS132	
D549	8-719-940-76	DIODE 1SS132	
D550	8-719-933-59	DIODE HZS9C1L	
D553	8-719-956-28	DIODE BR5628S	
D554	8-719-941-83	DIODE AY5638S	
D555	8-719-900-79	DIODE BG5628S	
D556	8-719-900-79	DIODE BG5628S	
D701	8-719-940-76	DIODE 1SS132	
D702	8-719-940-76	DIODE 1SS132	
D703	8-719-940-76	DIODE 1SS132	
D704	8-719-940-76	DIODE 1SS132	
D705	8-719-940-76	DIODE 1SS132	
D706	8-719-940-76	DIODE 1SS132	
D707	8-719-940-76	DIODE 1SS132	
D708	8-719-940-76	DIODE 1SS132	
D709	8-719-940-76	DIODE 1SS132	
D710	8-719-940-76	DIODE 1SS132	
D711	8-719-940-76	DIODE 1SS132	
D712	8-719-940-76	DIODE 1SS132	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
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Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description	Remark
D713	8-719-940-76	DIODE 1SS132	
D714	8-719-940-76	DIODE 1SS132	
D715	8-719-940-76	DIODE 1SS132	
D716	8-719-940-76	DIODE 1SS132	
D718	8-719-940-76	DIODE 1SS132	
D719	8-719-940-76	DIODE 1SS132	
D720	8-719-940-76	DIODE 1SS132	
D721	8-719-940-76	DIODE 1SS132	
D722	8-719-940-76	DIODE 1SS132	
D723	8-719-940-76	DIODE 1SS132	
D724	8-719-940-76	DIODE 1SS132	
D725	8-719-940-76	DIODE 1SS132	
D726	8-719-940-76	DIODE 1SS132	
D727	8-719-940-76	DIODE 1SS132	
D728	8-719-940-76	DIODE 1SS132	
D729	8-719-940-76	DIODE 1SS132	
D730	8-719-940-76	DIODE 1SS132	
D731	8-719-933-33	DIODE HZS6A1L	
D732	8-719-933-33	DIODE HZS6A1L	
D733	8-719-933-33	DIODE HZS6A1L	
D734	8-719-933-33	DIODE HZS6A1L	
D735	8-719-933-33	DIODE HZS6A1L	
D736	8-719-933-68	DIODE HZS11B3L	
D737	8-719-933-68	DIODE HZS11B3L	
FLT701	1-519-446-11	INDICATOR TUBE, FLUORESCENT	
HRP101 HE101	X-3391-143-1	HEAD ASSY, ROTARY	
IC101	8-759-602-48	IC M5201L	
IC201	8-759-602-48	IC M5201L	
IC301	8-759-602-01	IC M5220P	
IC302	8-752-018-70	IC CX20187	
IC303	8-759-106-41	IC UPC4570C	
IC304	8-759-600-02	IC M5218L	
IC305	8-759-106-56	IC UPC1297CA	
IC306	8-759-600-02	IC M5218L	
IC307	8-759-112-93	IC UPC4570HA	
IC308	8-759-601-43	IC M4066BP	
IC501	8-759-602-47	IC M50761-417P	
IC502	8-759-803-38	IC LC6520C-3177	
IC503	8-759-240-69	IC TC4069UBP	
IC504	8-759-700-46	IC CX10034	
IC505	8-759-240-19	IC TC4019BP	
IC506	8-759-240-19	IC TC4019BP	
IC701	8-759-302-98	IC HD614042SA87	
IC702	8-759-601-02	IC M5218P	
IC703	8-759-601-02	IC M5218P	
IC704	8-759-700-48	IC NJM2903S	
IC705	8-759-601-02	IC M5218P	
IC706	8-759-240-69	IC TC4069UBP	
IC707	8-759-820-07	IC LC7566	
IC708	8-759-140-66	IC UPD4066BC	
IC709	8-759-601-02	IC M5218P	
J301	1-507-796-21	JACK (HEADPHONES)	
J302	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)	
L101	1-410-780-11	INDUCTOR 27MMH	
L102	1-410-777-11	INDUCTOR 15MMH	
L103	1-410-774-11	INDUCTOR 8.2MMH	
L104	1-410-775-21	INDUCTOR 10MMH	
L201	1-410-780-11	INDUCTOR 27MMH	
L202	1-410-777-11	INDUCTOR 15MMH	
L203	1-410-774-11	INDUCTOR 8.2MMH	
L204	1-410-775-21	INDUCTOR 10MMH	

Ref.No	Part No.	Description	Remark
LPF101	1-236-147-11	FILTER, LOW PASS	
LPF201	1-236-147-11	FILTER, LOW PASS	
M1001	X-3391-130-1	MOTOR ASSY	
M1002	X-3391-156-1	MOTOR ASSY	
PL301	1-518-471-31	LAMP, PILOT	
PL302	1-518-471-31	LAMP, PILOT	
PM1001	1-454-440-11	SOLENOID, PLUNGER	
Q101	8-729-100-13	TRANSISTOR 2SC2001	
Q102	8-729-107-91	TRANSISTOR 2SC3622	
Q103	8-729-107-91	TRANSISTOR 2SC3622	
Q104	8-729-107-91	TRANSISTOR 2SC3622	
Q105	8-729-107-91	TRANSISTOR 2SC3622	
Q106	8-729-107-91	TRANSISTOR 2SC3622	
Q107	8-729-107-91	TRANSISTOR 2SC3622	
Q108	8-729-107-91	TRANSISTOR 2SC3622	
Q109	8-729-115-79	TRANSISTOR BA1A4M	
Q201	8-729-100-13	TRANSISTOR 2SC2001	
Q202	8-729-107-91	TRANSISTOR 2SC3622	
Q203	8-729-107-91	TRANSISTOR 2SC3622	
Q204	8-729-107-91	TRANSISTOR 2SC3622	
Q205	8-729-107-91	TRANSISTOR 2SC3622	
Q206	8-729-107-91	TRANSISTOR 2SC3622	
Q207	8-729-107-91	TRANSISTOR 2SC3622	
Q208	8-729-107-91	TRANSISTOR 2SC3622	
Q209	8-729-115-79	TRANSISTOR BA1A4M	
Q301	8-729-115-79	TRANSISTOR BA1A4M	
Q302	8-729-600-27	TRANSISTOR 2SC634SP	
Q303	8-729-115-79	TRANSISTOR BA1A4M	
Q304	8-729-806-38	TRANSISTOR 2SC3399	
Q305	8-729-107-91	TRANSISTOR 2SC3622	
Q306	8-729-107-91	TRANSISTOR 2SC3622	
Q307	8-729-115-12	TRANSISTOR BN1L4M	
Q308	8-729-115-15	TRANSISTOR BN1A4M	
Q309	8-729-115-15	TRANSISTOR BN1A4M	
Q310	8-729-115-15	TRANSISTOR BN1A4M	
Q311	8-729-115-15	TRANSISTOR BN1A4M	
Q312	8-729-115-79	TRANSISTOR BA1A4M	
Q313	8-729-115-15	TRANSISTOR BN1A4M	
Q315	8-729-806-38	TRANSISTOR 2SC3399	
Q316	8-729-195-23	TRANSISTOR 2SA952	
Q317	8-729-600-27	TRANSISTOR 2SC634SP	
Q318	8-729-600-27	TRANSISTOR 2SC634SP	
Q319	8-729-115-79	TRANSISTOR BA1A4M	
Q320	8-729-115-79	TRANSISTOR BA1A4M	
Q501	8-729-201-56	TRANSISTOR 2SK246GR2	
Q502	8-729-600-27	TRANSISTOR 2SC634SP	
Q503	8-729-600-27	TRANSISTOR 2SC634SP	
Q504	8-729-141-43	TRANSISTOR 2SD414	
Q505	8-729-117-54	TRANSISTOR 2SA1175	
Q506	8-729-117-54	TRANSISTOR 2SA1175	
Q507	8-729-154-83	TRANSISTOR 2SB548	
Q508	8-729-201-56	TRANSISTOR 2SK246-GR2	
Q509	8-729-600-27	TRANSISTOR 2SC634SP	
Q510	8-729-115-79	TRANSISTOR BA1A4M	
Q511	8-729-364-72	TRANSISTOR 2SB647	
Q512	8-729-110-68	TRANSISTOR 2SA1409-L	
Q513	8-729-107-25	TRANSISTOR 2SD1585-L	
Q514	8-729-806-26	TRANSISTOR 2SC3901	
Q515	8-729-600-27	TRANSISTOR 2SC634SP	
Q516	8-729-180-93	TRANSISTOR 2SD809	
Q518	8-729-107-91	TRANSISTOR 2SC3622	
Q519	8-729-115-15	TRANSISTOR BN1A4M	
Q520	8-729-115-79	TRANSISTOR BA1A4M	
Q521	8-729-600-27	TRANSISTOR 2SC634SP	
Q525	8-729-115-15	TRANSISTOR BN1A4M	
Q526	8-729-801-83	TRANSISTOR 2SB1013	
Q527	8-729-205-02	TRANSISTOR 2SA1150	
Q528	8-729-177-43	TRANSISTOR 2SD774	
Q529	8-729-801-83	TRANSISTOR 2SB1013	
Q530	8-729-801-83	TRANSISTOR 2SB1013	
Q531	8-729-801-93	TRANSISTOR 2SD1387	
Q532	8-729-801-93	TRANSISTOR 2SD1387	
Q533	8-729-801-83	TRANSISTOR 2SB1013	
Q534	8-729-115-15	TRANSISTOR BN1A4M	
Q535	8-729-115-15	TRANSISTOR BN1A4M	
Q536	8-729-115-15	TRANSISTOR BN1A4M	
Q537	8-729-115-79	TRANSISTOR BA1A4M	
Q538	8-729-107-91	TRANSISTOR 2SC3622	
Q539	8-729-115-79	TRANSISTOR BA1A4M	
Q540	8-729-115-79	TRANSISTOR BA1A4M	
Q541	8-729-115-15	TRANSISTOR BN1A4M	
Q542	8-729-180-93	TRANSISTOR 2SD809	
Q543	8-729-115-79	TRANSISTOR BA1A4M	
Q544	8-729-600-27	TRANSISTOR 2SC634SP	
Q701	8-729-806-16	TRANSISTOR 2SA1346	
Q702	8-729-806-16	TRANSISTOR 2SA1346	
Q703	8-729-806-16	TRANSISTOR 2SA1346	
Q704	8-729-806-16	TRANSISTOR 2SA1346	
Q705	8-729-806-16	TRANSISTOR 2SA1346	
Q706	8-729-806-16	TRANSISTOR 2SA1346	
Q707	8-729-806-16	TRANSISTOR 2SA1346	
Q708	8-729-806-16	TRANSISTOR 2SA1346	
Q709	8-729-806-16	TRANSISTOR 2SA1346	
Q710	8-729-806-16	TRANSISTOR 2SA1346	
Q712	8-729-806-16	TRANSISTOR 2SA1346	
Q713	8-729-806-16	TRANSISTOR 2SA1346	
Q714	8-729-806-16	TRANSISTOR 2SA1346	
Q715	8-729-806-16	TRANSISTOR 2SA1346	
Q716	8-729-806-16	TRANSISTOR 2SA1346	
Q717	8-729-806-16	TRANSISTOR 2SA1346	
Q718	8-729-806-16	TRANSISTOR 2SA1346	
Q719	8-729-806-16	TRANSISTOR 2SA1346	
Q720	8-729-115-15	TRANSISTOR BN1A4M	
Q721	8-729-115-15	TRANSISTOR BN1A4M	
Q722	8-729-806-16	TRANSISTOR 2SA1346	
Q723	8-729-806-16	TRANSISTOR 2SA1346	
Q724	8-729-115-15	TRANSISTOR BN1A4M	
Q725	8-729-600-27	TRANSISTOR 2SC634SP	
Q726	8-729-107-91	TRANSISTOR 2SC3622-L	
Q727	8-729-806-34	TRANSISTOR 2SC3400	
Q728	8-729-115-15	TRANSISTOR BN1A4M	
Q729	8-729-115-79	TRANSISTOR BA1A4M	
Q730	8-729-806-34	TRANSISTOR 2SC3400	
Q1001	X-3391-141-1	SENSER ASSY	
Q1002	1-807-509-11	PHOTO SENSER	
Q1003	1-807-509-11	PHOTO SENSER	

RESISTOR

R101	1-214-763-00	METAL	27K	1%	1/4W
R102	1-214-104-00	METAL	68	1%	1/4W
R103	1-249-603-11	CARBON	130K	5%	1/4W
R104	1-214-746-00	METAL	5.1K	1%	1/4W
R105	1-249-431-11	CARBON	15K	5%	1/4W
R106	1-247-717-11	CARBON	2.2K	5%	1/4W
R107	1-247-718-11	CARBON	2.7K	5%	1/4W
R108	1-247-887-00	CARBON	220K	5%	1/4W
R109	1-249-429-11	CARBON	10K	5%	1/4W
R110	1-249-429-11	CARBON	10K	5%	1/4W

Ref.No	Part No.	Description			Remark
R111	1-249-441-11	CARBON	100K	5%	1/4W
R112	1-247-719-11	CARBON	3.3K	5%	1/4W
R113	1-247-152-00	CARBON	7.5K	5%	1/4W
R114	1-247-146-00	CARBON	4.3K	5%	1/4W
R115	1-249-561-11	CARBON	2.4K	5%	1/4W
R116	1-249-543-11	CARBON	430	5%	1/4W
R117	1-249-427-11	CARBON	6.8K	5%	1/4W
R118	1-249-415-11	CARBON	680	5%	1/4W
R119	1-247-713-11	CARBON	1K	5%	1/4W
R120	1-259-452-11	CARBON	10K	5%	1/6W
R121	1-259-468-11	CARBON	47K	5%	1/6W
R122	1-249-429-11	CARBON	10K	5%	1/4W
R124	1-249-433-11	CARBON	22K	5%	1/4W
R125	1-247-725-11	CARBON	10K	5%	1/4W
R126	1-247-725-11	CARBON	10K	5%	1/4W
R127	1-249-421-11	CARBON	2.2K	5%	1/4W
R128	1-249-469-11	CARBON	100K	5%	1/4W
R129	1-247-723-11	CARBON	6.8K	5%	1/4W
R130	1-249-590-11	CARBON	39K	5%	1/4W
R131	1-249-596-11	CARBON	68K	5%	1/4W
R132	1-247-723-11	CARBON	6.8K	5%	1/4W
R133	1-247-704-11	CARBON	220	5%	1/4W
R134	1-247-152-00	CARBON	8.2K	5%	1/4W
R135	1-249-462-11	CARBON	22K	5%	1/4W
R136	1-247-148-00	CARBON	5.1K	5%	1/4W
R138	1-249-497-11	CARBON	33K	5%	1/4W
R139	1-247-720-11	CARBON	3.9K	5%	1/4W
R140	1-249-429-11	CARBON	10K	5%	1/4W
R141	1-249-429-11	CARBON	10K	5%	1/4W
R142	1-249-429-11	CARBON	10K	5%	1/4W
R143	1-249-425-11	CARBON	4.7K	5%	1/4W
R144	1-249-432-11	CARBON	18K	5%	1/4W
R145	1-247-883-00	CARBON	150K	5%	1/4W
R146	1-249-462-11	CARBON	22K	5%	1/4W
R148	1-259-436-11	CARBON	2.2K	5%	1/6W
R149	1-259-459-11	CARBON	20K	5%	1/6W
R150	1-247-704-11	CARBON	220	5%	1/4W
R151	1-214-765-00	METAL	33K	1%	1/4W
R152	1-214-729-00	METAL	1K	1%	1/4W
R153	1-214-737-00	METAL	2.2K	1%	1/4W
R154	1-249-421-11	CARBON	2.2K	5%	1/4W
R155	1-249-441-11	CARBON	100K	5%	1/4W
R156	1-249-417-11	CARBON	1K	5%	1/4W
R157	1-249-393-11	CARBON	10	5%	1/4W
R158	1-249-434-11	CARBON	27K	5%	1/4W
R159	1-249-422-11	CARBON	2.7K	5%	1/4W
R160	1-249-429-11	CARBON	10K	5%	1/4W
R162	1-247-713-11	CARBON	1K	5%	1/4W
R163	1-249-433-11	CARBON	22K	5%	1/4W
R164	1-249-433-11	CARBON	22K	5%	1/4W
R165	1-249-408-11	CARBON	180	5%	1/4W
R166	1-249-436-11	CARBON	39K	5%	1/4W
R167	1-249-417-11	CARBON	1K	5%	1/4W
R168	1-249-429-11	CARBON	10K	5%	1/4W
R169	1-249-429-11	CARBON	10K	5%	1/4W
R170	1-249-465-11	CARBON	47K	5%	1/4W
R171	1-249-433-11	CARBON	22K	5%	1/4W
R172	1-249-429-11	CARBON	10K	5%	1/4W
R201	1-214-763-00	METAL	27K	1%	1/4W
R202	1-214-104-00	METAL	68	1%	1/4W
R203	1-249-603-11	CARBON	130K	5%	1/4W
R204	1-214-746-00	METAL	5.1K	1%	1/4W
R205	1-249-431-11	CARBON	15K	5%	1/4W
R206	1-247-717-11	CARBON	2.2K	5%	1/4W
R207	1-247-718-11	CARBON	2.7K	5%	1/4W

Ref.No	Part No.	Description			Remark
R208	1-247-887-00	CARBON	220K	5%	1/4W
R209	1-249-429-11	CARBON	10K	5%	1/4W
R210	1-249-429-11	CARBON	10K	5%	1/4W
R211	1-249-441-11	CARBON	100K	5%	1/4W
R212	1-247-719-11	CARBON	3.3K	5%	1/4W
R213	1-247-152-00	CARBON	7.5K	5%	1/4W
R214	1-247-146-00	CARBON	4.3K	5%	1/4W
R215	1-249-561-11	CARBON	2.4K	5%	1/4W
R216	1-249-543-11	CARBON	430	5%	1/4W
R217	1-249-427-11	CARBON	6.8K	5%	1/4W
R218	1-249-415-11	CARBON	680	5%	1/4W
R219	1-247-713-11	CARBON	1K	5%	1/4W
R220	1-259-452-11	CARBON	10K	5%	1/6W
R221	1-259-468-11	CARBON	47K	5%	1/6W
R222	1-249-429-11	CARBON	10K	5%	1/4W
R224	1-249-433-11	CARBON	22K	5%	1/4W
R225	1-247-725-11	CARBON	10K	5%	1/4W
R226	1-247-725-11	CARBON	10K	5%	1/4W
R227	1-249-421-11	CARBON	2.2K	5%	1/4W
R228	1-249-469-11	CARBON	100K	5%	1/4W
R229	1-247-723-11	CARBON	6.8K	5%	1/4W
R230	1-249-590-11	CARBON	39K	5%	1/4W
R231	1-249-596-11	CARBON	68K	5%	1/4W
R232	1-247-723-11	CARBON	6.8K	5%	1/4W
R233	1-247-704-11	CARBON	220	5%	1/4W
R234	1-247-152-00	CARBON	8.2K	5%	1/4W
R235	1-249-462-11	CARBON	22K	5%	1/4W
R236	1-247-148-00	CARBON	5.1K	5%	1/4W
R238	1-249-497-11	CARBON	33K	5%	1/4W
R239	1-247-720-11	CARBON	3.9K	5%	1/4W
R240	1-249-429-11	CARBON	10K	5%	1/4W
R241	1-249-429-11	CARBON	10K	5%	1/4W
R242	1-249-429-11	CARBON	10K	5%	1/4W
R243	1-249-425-11	CARBON	4.7K	5%	1/4W
R244	1-249-432-11	CARBON	18K	5%	1/4W
R245	1-247-883-00	CARBON	150K	5%	1/4W
R246	1-249-462-11	CARBON	22K	5%	1/4W
R248	1-259-436-11	CARBON	2.2K	5%	1/6W
R249	1-259-459-11	CARBON	20K	5%	1/6W
R250	1-247-704-11	CARBON	220	5%	1/4W
R251	1-214-765-00	METAL	33K	1%	1/4W
R252	1-214-729-00	METAL	1K	1%	1/4W
R253	1-214-737-00	METAL	2.2K	1%	1/4W
R254	1-249-421-11	CARBON	2.2K	5%	1/4W
R255	1-249-441-11	CARBON	100K	5%	1/4W
R256	1-249-417-11	CARBON	1K	5%	1/4W
R257	1-249-393-11	CARBON	10	5%	1/4W
R258	1-249-434-11	CARBON	27K	5%	1/4W
R259	1-249-422-11	CARBON	2.7K	5%	1/4W
R260	1-249-429-11	CARBON	10K	5%	1/4W
R262	1-247-713-11	CARBON	1K	5%	1/4W
R263	1-249-433-11	CARBON	22K	5%	1/4W
R264	1-249-433-11	CARBON	22K	5%	1/4W
R265	1-249-408-11	CARBON	180	5%	1/4W
R266	1-249-436-11	CARBON	39K	5%	1/4W
R267	1-249-417-11	CARBON	1K	5%	1/4W
R268	1-249-429-11	CARBON	10K	5%	1/4W
R269	1-249-429-11	CARBON	10K	5%	1/4W
R270	1-249-465-11	CARBON	47K	5%	1/4W
R271	1-249-433-11	CARBON	22K	5%	1/4W
R272	1-249-429-11	CARBON	10K	5%	1/4W
R301	1-247-704-11	CARBON	220	5%	1/4W
R302	1-247-704-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-215-469-00	METAL	100K	1%	1/6W

Ref.No	Part No.	Description				Remark
R305	1-249-429-11	CARBON	10K	5%	1/4W	
R306	1-249-431-11	CARBON	15K	5%	1/4W	
R307	1-249-421-11	CARBON	2.2K	5%	1/4W	
R308	1-249-405-11	CARBON	100	5%	1/4W	
R309	1-249-441-11	CARBON	100K	5%	1/4W	
R312	1-249-433-11	CARBON	22K	5%	1/4W	
R313	1-249-433-11	CARBON	22K	5%	1/4W	
R314	1-249-441-11	CARBON	100K	5%	1/4W	
R315	1-249-429-11	CARBON	10K	5%	1/4W	
R316	1-249-429-11	CARBON	10K	5%	1/4W	
R317	1-249-405-11	CARBON	100	5%	1/4W	
R318	1-215-454-00	METAL	24K	1%	1/6W	
R319	1-215-442-00	METAL	7.5K	1%	1/6W	
R320	1-249-413-11	CARBON	470	5%	1/4W	
R321	1-249-411-11	CARBON	330	5%	1/4W	
R322	1-215-444-00	METAL	9.1K	1%	1/6W	
R323	1-249-397-11	CARBON	22	5%	1/4W	
R324	1-215-444-00	METAL	9.1K	1%	1/6W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R326	1-249-429-11	CARBON	10K	5%	1/4W	
R327	1-249-425-11	CARBON	4.7K	5%	1/4W	
R328	1-249-429-11	CARBON	10K	5%	1/4W	
R329	1-249-429-11	CARBON	10K	5%	1/4W	
R330	1-249-425-11	CARBON	4.7K	5%	1/4W	
R331	1-249-432-11	CARBON	18K	5%	1/4W	
R332	1-249-441-11	CARBON	100K	5%	1/4W	
R334	1-249-437-11	CARBON	47K	5%	1/4W	
R335	1-249-437-11	CARBON	47K	5%	1/4W	
R336	⚠1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R337	1-249-405-11	CARBON	100	5%	1/4W	
R338	1-249-425-11	CARBON	4.7K	5%	1/4W	
R339	1-249-433-11	CARBON	22K	5%	1/4W	
R340	1-249-433-11	CARBON	22K	5%	1/4W	
R341	1-249-417-11	CARBON	1K	5%	1/4W	
R342	1-249-429-11	CARBON	10K	5%	1/4W	
R343	1-249-417-11	CARBON	1K	5%	1/4W	
R346	1-247-717-11	CARBON	2.2K	5%	1/4W	
R347	1-249-429-11	CARBON	10K	5%	1/4W	
R348	1-249-429-11	CARBON	10K	5%	1/4W	
R349	1-215-419-00	METAL	820	1%	1/6W	
R350	1-215-419-00	METAL	820	1%	1/6W	
R351	1-215-454-00	METAL	24K	1%	1/6W	
R352	1-249-413-11	CARBON	470	5%	1/4W	
R353	1-249-411-11	CARBON	330	5%	1/4W	
R354	1-249-425-11	CARBON	4.7K	5%	1/4W	
R355	1-249-397-11	CARBON	22	5%	1/4W	
R357	1-249-425-11	CARBON	4.7K	5%	1/4W	
R358	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-214-713-00	METAL	220	1%	1/4W	
R504	1-214-731-00	METAL	1.2K	1%	1/4W	
R505	1-214-723-00	METAL	560	1%	1/4W	
R506	1-247-725-11	CARBON	10K	5%	1/4W	
R507	1-214-721-00	METAL	470	1%	1/4W	
R508	1-249-433-11	CARBON	22K	5%	1/4W	
R510	1-249-433-11	CARBON	22K	5%	1/4W	
R511	1-214-747-00	METAL	5.6K	1%	1/4W	
R512	1-214-755-00	METAL	12K	1%	1/4W	
R513	1-249-462-11	CARBON	22K	5%	1/4W	
R514	1-247-721-11	CARBON	4.7K	5%	1/4W	
R515	1-249-426-11	CARBON	5.6K	5%	1/4W	
R516	1-249-417-11	CARBON	1K	5%	1/4W	
R517	1-247-717-11	(Canadian, AEP, UK, E)....CARBON	2.2K	5%	1/4W	
R517	1-249-421-11	(US)....CARBON	2.2K	5%	1/4W	
R518	1-247-752-11	CARBON	1K	5%	1/2W	
R519	1-249-405-11	CARBON	100	5%	1/4W	

Ref.No	Part No.	Description				Remark
R520	1-249-432-11	CARBON	18K	5%	1/4W	
R521	1-249-430-11	CARBON	12K	5%	1/4W	
R522	1-249-393-11	CARBON	10	5%	1/4W	
R523	1-249-433-11	CARBON	22K	5%	1/4W	
R524	1-247-903-00	CARBON	1M	5%	1/4W	
R525	1-249-422-11	CARBON	2.7K	5%	1/4W	
R526	1-249-441-11	CARBON	100K	5%	1/4W	
R528	1-249-429-11	CARBON	10K	5%	1/4W	
R529	1-247-903-00	CARBON	1M	5%	1/4W	
R530	1-249-429-11	CARBON	10K	5%	1/4W	
R531	1-249-417-11	CARBON	1K	5%	1/4W	
R532	1-249-437-11	CARBON	47K	5%	1/4W	
R533	1-249-433-11	CARBON	22K	5%	1/4W	
R534	1-249-433-11	CARBON	22K	5%	1/4W	
R535	1-249-437-11	CARBON	47K	5%	1/4W	
R536	1-249-437-11	CARBON	47K	5%	1/4W	
R537	1-249-430-11	CARBON	12K	5%	1/4W	
R538	1-249-425-11	CARBON	4.7K	5%	1/4W	
R539	1-249-430-11	CARBON	12K	5%	1/4W	
R540	1-247-708-11	CARBON	470	5%	1/4W	
R541	1-249-433-11	CARBON	22K	5%	1/4W	
R542	1-249-433-11	CARBON	22K	5%	1/4W	
R544	1-249-425-11	CARBON	4.7K	5%	1/4W	
R551	1-249-413-11	CARBON	470	5%	1/4W	
R552	1-249-413-11	CARBON	470	5%	1/4W	
R553	1-249-413-11	CARBON	470	5%	1/4W	
R554	1-249-413-11	CARBON	470	5%	1/4W	
R555	1-249-413-11	CARBON	470	5%	1/4W	
R556	1-249-413-11	CARBON	470	5%	1/4W	
R557	1-249-413-11	CARBON	470	5%	1/4W	
R558	1-249-413-11	CARBON	470	5%	1/4W	
R559	1-249-413-11	CARBON	470	5%	1/4W	
R560	1-249-413-11	CARBON	470	5%	1/4W	
R561	1-249-433-11	CARBON	22K	5%	1/4W	
R562	1-249-433-11	CARBON	22K	5%	1/4W	
R563	1-249-433-11	CARBON	22K	5%	1/4W	
R564	1-249-433-11	CARBON	22K	5%	1/4W	
R565	1-249-433-11	CARBON	22K	5%	1/4W	
R566	1-249-433-11	CARBON	22K	5%	1/4W	
R567	1-249-433-11	CARBON	22K	5%	1/4W	
R568	1-249-433-11	CARBON	22K	5%	1/4W	
R569	1-249-433-11	CARBON	22K	5%	1/4W	
R570	1-249-433-11	CARBON	22K	5%	1/4W	
R571	1-249-433-11	CARBON	22K	5%	1/4W	
R572	1-249-433-11	CARBON	22K	5%	1/4W	
R578	1-249-431-11	CARBON	15K	5%	1/4W	
R579	1-249-425-11	CARBON	4.7K	5%	1/4W	
R580	1-249-430-11	CARBON	12K	5%	1/4W	
R581	1-215-452-00	CARBON	20K	5%	1/4W	
R582	1-249-435-11	CARBON	33K	5%	1/4W	
R583	1-249-435-11	CARBON	33K	5%	1/4W	
R584	1-247-887-00	CARBON	220K	5%	1/4W	
R585	1-247-887-00	CARBON	220K	5%	1/4W	
R586	1-249-408-11	CARBON	180	5%	1/4W	
R587	1-249-408-11	CARBON	180	5%	1/4W	
R588	1-249-408-11	CARBON	180	5%	1/4W	
R589	1-249-408-11	CARBON	180	5%	1/4W	
R590	1-249-423-11	CARBON	3.3K	5%	1/4W	
R591	1-249-423-11	CARBON	3.3K	5%	1/4W	
R592	1-249-417-11	CARBON	1K	5%	1/4W	
R593	1-249-415-11	CARBON	680	5%	1/4W	
R594	1-249-421-11	CARBON	2.2K	5%	1/4W	
R595	1-249-417-11	CARBON	1K	5%	1/4W	
R596	1-249-417-11	CARBON	1K	5%	1/4W	
R597	1-249-417-11	CARBON	1K	5%	1/4W	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No	Part No.	Description			Remark
R598	1-249-417-11	CARBON	1K	5%	1/4W
R599	1-249-418-11	CARBON	1.2K	5%	1/4W
R600	1-249-405-11	CARBON	100	5%	1/4W
R601	1-249-413-11	CARBON	470	5%	1/4W
R602	1-249-425-11	CARBON	4.7K	5%	1/4W
R604	1-249-435-11	CARBON	33K	5%	1/4W
R605	1-249-433-11	CARBON	22K	5%	1/4W
R606	1-249-441-11	CARBON	100K	5%	1/4W
R607	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R701	1-249-429-11	CARBON	10K	5%	1/4W
R702	1-249-429-11	CARBON	10K	5%	1/4W
R703	1-249-429-11	CARBON	10K	5%	1/4W
R704	1-249-417-11	CARBON	1K	5%	1/4W
R705	1-249-433-11	CARBON	22K	5%	1/4W
R706	1-249-417-11	CARBON	1K	5%	1/4W
R707	1-249-433-11	CARBON	22K	5%	1/4W
R708	1-249-432-11	CARBON	18K	5%	1/4W
R709	1-249-425-11	CARBON	4.7K	5%	1/4W
R710	1-249-425-11	CARBON	4.7K	5%	1/4W
R711	1-249-441-11	CARBON	100K	5%	1/4W
R712	1-249-441-11	CARBON	100K	5%	1/4W
R713	1-249-421-11	CARBON	2.2K	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-249-425-11	CARBON	4.7K	5%	1/4W
R717	1-247-887-00	CARBON	220K	5%	1/4W
R718	1-215-462-00	CARBON	51K	5%	1/4W
R719	1-249-436-11	CARBON	39K	5%	1/4W
R720	1-249-413-11	CARBON	470	5%	1/4W
R721	1-249-437-11	CARBON	47K	5%	1/4W
R722	1-249-441-11	CARBON	100K	5%	1/4W
R723	1-215-452-00	CARBON	20K	5%	1/4W
R724	1-247-903-00	CARBON	1M	5%	1/4W
R725	1-247-903-00	CARBON	1M	5%	1/4W
R726	1-249-441-11	CARBON	100K	5%	1/4W
R727	1-249-441-11	CARBON	100K	5%	1/4W
R728	1-249-433-11	CARBON	22K	5%	1/4W
R729	1-247-903-00	CARBON	1M	5%	1/4W
R730	1-215-452-00	METAL	20K	1%	1/6W
R731	1-215-452-00	METAL	20K	1%	1/6W
R732	1-215-452-00	METAL	20K	1%	1/6W
R733	1-215-452-00	METAL	20K	1%	1/6W
R734	1-215-452-00	METAL	20K	1%	1/6W
R735	1-215-452-00	METAL	20K	1%	1/6W
R736	1-215-452-00	METAL	20K	1%	1/6W
R737	1-215-445-00	METAL	10K	1%	1/6W
R738	1-215-445-00	METAL	10K	1%	1/6W
R739	1-215-445-00	METAL	10K	1%	1/6W
R740	1-215-445-00	METAL	10K	1%	1/6W
R741	1-215-445-00	METAL	10K	1%	1/6W
R742	1-215-445-00	METAL	10K	1%	1/6W
R743	1-215-460-00	METAL	43K	1%	1/6W
R744	1-215-425-00	METAL	1.5K	1%	1/6W
R745	1-249-425-11	CARBON	4.7K	5%	1/4W
R746	1-249-425-11	CARBON	4.7K	5%	1/4W
R747	1-249-441-11	CARBON	100K	5%	1/4W
R748	1-249-439-11	CARBON	68K	5%	1/4W
R749	1-215-448-00	CARBON	13K	5%	1/4W
R750	1-249-433-11	CARBON	22K	5%	1/4W
R751	1-215-489-00	CARBON	680K	5%	1/4W
R752	1-249-441-11	CARBON	100K	5%	1/4W
R753	1-249-434-11	CARBON	27K	5%	1/4W
R754	1-249-426-11	CARBON	5.6K	5%	1/4W
R755	1-247-889-00	CARBON	270K	5%	1/4W

Ref.No	Part No.	Description			Remark
R756	1-249-441-11	CARBON	100K	5%	1/4W
R757	1-215-437-00	METAL	4.7K	1%	1/6W
R758	1-215-433-00	METAL	3.3K	1%	1/6W
R759	1-215-461-00	METAL	47K	1%	1/6W
R760	1-249-441-11	CARBON	100K	5%	1/4W
R761	1-215-445-00	METAL	10K	1%	1/6W
R762	1-215-416-00	METAL	620	1%	1/6W
R763	1-215-452-00	CARBON	20K	5%	1/4W
R764	1-215-452-00	CARBON	20K	5%	1/4W
R765	1-215-442-00	CARBON	7.5K	5%	1/4W
R766	1-249-437-11	CARBON	47K	5%	1/4W
R767	1-249-433-11	CARBON	22K	5%	1/4W
R768	1-249-429-11	CARBON	10K	5%	1/4W
R769	1-249-429-11	CARBON	10K	5%	1/4W
R770	1-249-429-11	CARBON	10K	5%	1/4W
R771	1-249-429-11	CARBON	10K	5%	1/4W
R772	1-249-441-11	CARBON	100K	5%	1/4W
R773	1-249-441-11	CARBON	100K	5%	1/4W
R774	1-249-441-11	CARBON	100K	5%	1/4W
R775	1-249-441-11	CARBON	100K	5%	1/4W
R776	1-249-441-11	CARBON	100K	5%	1/4W
R777	1-249-441-11	CARBON	100K	5%	1/4W
R778	1-249-441-11	CARBON	100K	5%	1/4W
R779	1-249-441-11	CARBON	100K	5%	1/4W
R780	1-249-441-11	CARBON	100K	5%	1/4W
R781	1-249-441-11	CARBON	100K	5%	1/4W
R782	1-249-441-11	CARBON	100K	5%	1/4W
R783	1-249-441-11	CARBON	100K	5%	1/4W
R784	1-249-441-11	CARBON	100K	5%	1/4W
R785	1-249-441-11	CARBON	100K	5%	1/4W
R786	1-249-441-11	CARBON	100K	5%	1/4W
R787	1-249-441-11	CARBON	100K	5%	1/4W
R788	1-249-441-11	CARBON	100K	5%	1/4W
R789	1-249-441-11	CARBON	100K	5%	1/4W
R790	1-249-441-11	CARBON	100K	5%	1/4W
R791	1-249-441-11	CARBON	100K	5%	1/4W
R792	1-249-441-11	CARBON	100K	5%	1/4W
R793	1-249-441-11	CARBON	100K	5%	1/4W
R794	1-249-441-11	CARBON	100K	5%	1/4W
R795	1-249-441-11	CARBON	100K	5%	1/4W
R796	1-249-441-11	CARBON	100K	5%	1/4W
R797	1-249-441-11	CARBON	100K	5%	1/4W
R798	1-249-441-11	CARBON	100K	5%	1/4W
R799	1-249-441-11	CARBON	100K	5%	1/4W
RV101	1-228-994-00	RES, ADJ, CARBON 10K			
RV102	1-238-062-11	RES, VAR, CARBON 10K/10K (CAL LEVEL L)			
RV103	1-230-632-11	RES, ADJ, CARBON 33K			
RV104	1-228-995-00	RES, ADJ, CARBON 22K			
RV105	1-228-997-00	RES, ADJ, CARBON 100K			
RV106	1-228-995-00	RES, ADJ, CARBON 22K			
RV201	1-228-994-00	RES, ADJ, CARBON 10K			
RV202	1-238-062-11	RES, VAR, CARBON 10K/10K (CAL LEVEL R)			
RV203	1-230-632-11	RES, ADJ, CARBON 33K			
RV204	1-228-995-00	RES, ADJ, CARBON 22K			
RV205	1-228-997-00	RES, ADJ, CARBON 100K			
RV206	1-228-995-00	RES, ADJ, CARBON 22K			
RV301	1-226-740-00	RES, VAR, CARBON 20K/20K (REC LEVEL)			
RV302	1-230-313-00	RES, VAR, CARBON 20K/20K (HEAD PHONES LEVEL)			
RV303	1-238-063-11	RES, VAR, CARBON 5K (BIAS ADJ)			
RV304	1-228-994-00	RES, ADJ, CARBON 10K			
RV501	1-228-995-00	RES, ADJ, CARBON 22K			
RV701	1-228-996-00	RES, ADJ, CARBON 47K			
RY301	1-515-683-11	RELAY			

Ref.No	Part No.	Description	Remark
S301	⚠1-570-103-21	SWITCH, PUSH (1 KEY) (POWER)	
S302	1-571-369-11	SWITCH, PUSH (3 KEY) (DULBY NR/DIRECTION MODE)	
S303	1-554-423-00	SWITCH, SLIDE (TIMER)	
S501	1-554-303-21	SWITCH, KEY BOARD (■)	
S502	1-554-303-21	SWITCH, KEY BOARD (◀◀ AUTO PLAY ▶)	
S503	1-554-303-21	SWITCH, KEY BOARD (◀ AUTO PLAY ▶▶)	
S504	1-554-303-21	SWITCH, KEY BOARD (▶)	
S505	1-554-303-21	SWITCH, KEY BOARD (◀)	
S506	1-554-303-21	SWITCH, KEY BOARD (● REC)	
S507	1-554-303-21	SWITCH, KEY BOARD (II)	
S508	1-554-303-21	SWITCH, KEY BOARD (REC MUTE)	
S509	1-554-303-21	SWITCH, KEY BOARD (TAPE OPERATION)	
S510	1-554-303-21	SWITCH, KEY BOARD (REC CAL)	
S701	1-554-303-21	SWITCH, KEY BOARD (COUNTER RESET)	
S702	1-554-303-21	SWITCH, KEY BOARD (COUNTER MEMORY)	
S901	⚠1-570-307-11	(E)....SWITCH, VOLTAGE CHANGE	
S1001	1-570-720-11	SWITCH, PUSH	
S1002	1-570-720-11	SWITCH, PUSH	
S1005	1-570-723-11	SWITCH, PUSH	
S1006	1-570-719-11	SWITCH, LEAF	
S1007	1-570-721-11	SWITCH, LEAF	
SPK101	1-235-186-00	ENCAPSULATED COMPONENT	
SPK201	1-235-186-00	ENCAPSULATED COMPONENT	
T101	1-433-335-11	TRANSFORMER, BIAS OSCILLATION	
T201	1-433-335-11	TRANSFORMER, BIAS OSCILLATION	
T302	1-433-336-11	TRANSFORMER, BIAS OSCILLATION	
T501	⚠1-449-272-11	(US, Canadian)....TRANSFORMER, POWER	
T501	⚠1-449-273-11	(AEP, UK)....TRANSFORMER, POWER	
T501	⚠1-449-274-11	(E)....TRANSFORMER, POWER	
THP501	⚠1-202-850-00	SOLID 2.2 1/4W	F
THP502	⚠1-202-850-00	SOLID 2.2 1/4W	F
TP1	*1-564-506-11	PLUG, CONNECTOR 3P	
TP2	*1-564-505-11	PLUG, CONNECTOR 2P	
TP3	*1-564-506-11	PLUG, CONNECTOR 3P	
X501	1-567-772-11	VIBRATOR, CERAMIC 4.19MHz	
X502	1-527-532-00	OSCILLATOR, CERAMIC 400KHz	

ACCESSORY & PACKING MATERIAL

Part No.	Description	Remark
1-551-734-11	CORD, CONNECTION (RK- 74A)	
1-558-233-11	CORD (WITH CONNECTOR) (SIRCS)4P	
*3-332-555-01	(EXCEPT FOR AEP)....CUSHION	
*3-332-556-11	INDIVIDUAL CARTON	
3-346-203-01	(AEP)....CUSHION	
3-703-450-01	(US)....INSTRUCTION	
*3-704-346-01	SHEET (STANDARD), PROTECTION	
3-769-859-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH : EXCEPT FOR US)	
3-769-859-21	MANUAL, INSTRUCTION (ENGLISH : US)	
3-769-859-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN : AEP)	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

TROUBLESHOOTING GUIDE

FUNCTION BUTTONS AND TAPE TRANSPORT PROBLEMS		
Symptom	**Cause**	**Remedy**
Function buttons do not activate.	Cassette holder is not fully closed.	Close the holder completely.
Playback or recording begins just as the power is turned on.	The TIMER switch is not set to OFF.	Set the TIMER switch to OFF.
● button does not activate.	No cassette in the holder.	Insert a cassette.
	Tab has been removed from the cassette.	Cover the hole with plastic tape.
Automatic shut-off mechanism activates before the tape comes to its end.	Tape is slack.	Take up the tape slack.
	Cassette shell is deformed.	Use another cassette.
	The MEMORY function is activated.	Press the MEMORY button to deactivate the function.
	The inside of the cassette holder is illuminated by strong light.	Remove the light source.
Excessively loud tape transport noise when rewinding or fast-forwarding	This depends on the cassette used and is not a problem.	—
The cassette holder does not open.	⏏ button was pressed immediately after the ◀, ▶ or ■ button was pressed.	Turn the power off, and then press the button.

RECORDING AND PLAYBACK PROBLEMS		
Symptom	**Cause**	**Remedy**
Quick reverse function does not operate.	DIRECTION MODE selector is released ⇄ (⇄).	Depress the selector and set to ⇄ (⇄).
Recording or playback cannot be made or there is a decrease in sound level.	Record/playback and erase heads are either dirty or magnetized.	Clean or demagnetize the heads.
	Improper connection	Make connections properly.
	Improper setting of the amplifier controls	Set the amplifier controls to the appropriate positions.
Excessive wow, flutter or dropout	Head, capstan or pinch roller is dirty.	Clean in accordance with instructions
Imcomplete erasure	Erase head is dirty.	Clean the erase head.
Increased noise or poor reproduction in high frequencies	Head is magnetized.	Demagnetize the head.
Unbalanced tone in high frequencies	Improper setting of the DOLBY NR switches.	During playback, set the switches to the same position used in recording.
	The unit is placed near a television set.	Move the deck away from the television set.
The desired selection cannot be located even if you activate the AMS.	There is noise in the space between selections.	—
	The space is less than 4 seconds long.	Press ○ to insert a longer blank space.
	The ◀◀ or ▶▶ button is pressed immediately before or after the beginning of the following selection.	—
Playback or fast-winding may begin in the middle of the slection when AMS or blank skip is activated.	The following will be treated as blanks: —a long pause in the music —a passage of low frequencies or very low volume —gradual increase or decrease of volume	—

NOISE		
Symptom	**Cause**	**Remedy**
Hum noise	The deck is stacked on or under the amplifier.	Separate the units.
Noise is recorded.	Recording was made near such equipment as a television set or a color monitor, and interference has affected the recording on the tape and the Dolby NR system.	Move the unit away from the television set or color monitor.

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Audio Group

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